

Title: Inhibiting Apoptosis Adenovirus RID Protein

1/85

Inventor(s): William S.M. Wold Appln. No. 09/111,911

Appln. No. 09/111,911 Docket # 66153-5587

1/85

401 275 376 386 354 439 313 411 423 392 **OKOHH** ROOKH E OKOE ш.ш. 🕮 🕮 🕻 C K K чнг 2 2 2 2 5 D T C E G 0 > 0 A A E E E ZZH H K H U D E E 日記書刊日日 Х E D C ... 田女 AAZZ O O O OSHEN E D E 選と問題 H A U 包田原 因文字对 д д O 日 日 日 日 日 日 日 O R S S Ø E Z O O O H A H 276 377 387 362 236

Figure 1

Title:
Inventor(s):
Appln. No.
Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold

09/111,911 66153-5587

2/85

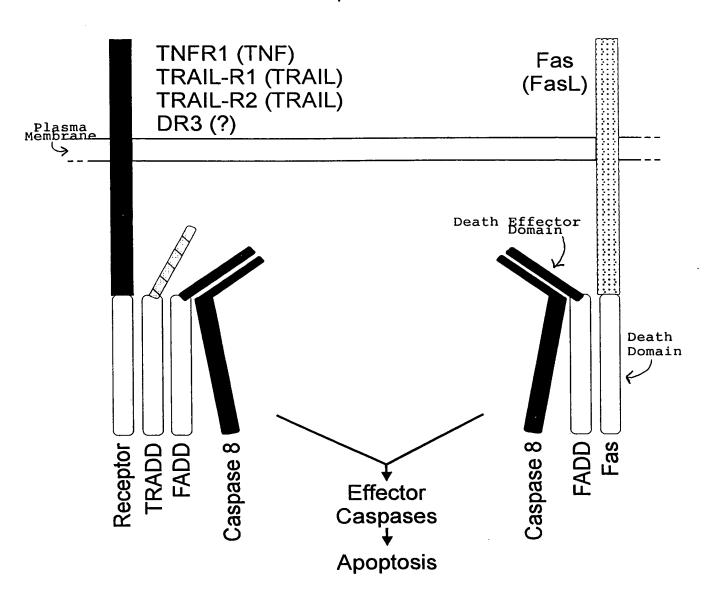


FIGURE 2

Title: Inhibiting Apoptosis Adenovirus RID Protein
Inventor(s): William S.M. Wold
Appln. No. 09/111,911
Docket # 66153-5587
3 / 85

3/85
RID COMPLEX

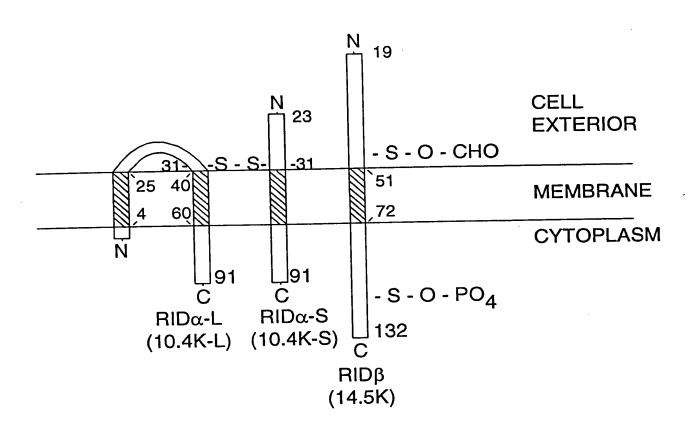


Figure 3

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold 09/111,911

Appln. No. 09/111,911 Docket # 66153-5587

4/85

#### 4/85

 $RID\alpha-L$  (10.4K-L)

60 70 80 IAFIQFIDWVCVRIAYLRHHPQYRDRTI

90 A D L L R I L

#### Figure 4A

 $RID\alpha-S$  (10.4K-S)

10 20
A V A H I E V D C I P P F T V Y L <u>L Y G F V T L I L I C</u>

\* transmembrane

30 50 51 V T V V I A F I Q F I D W V C V R I A Y L R H H P Q

60 YRDRTIADLLRIL

### Figure 4B

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold Inventor(s): 09/111,911 Appln. No. 66153-5587 Docket # 5/85 5/85 Pre-RID $\beta$  (14.5K) 20 10 <u>M K F T V T F L L I I C T L S A F C</u> S P T S K P Q R H I signal sequence 50 40 S C R F T R I W N I P S C Y N E K S D L S E <u>A W L Y A I</u> 80 70 <u>ISVMVFCSTILALAIY</u>PYLDIGWNAIDA Transmembrane 110 100 90 M N H P T F P A P A M L P L Q Q V V A G G F V P A N Q P 130 120 RPPSPTEISYFNLTGGDD Figure 4C Mature-RIDβ (14.5K) 20 SPTSKPQRHISCRFTRIWNIPSCYNEKS 50 40 D L S E <u>A W L Y A I I S V M V F C S T I L A L A I Y</u> P Y Transmembrane 80 70 60 LDIGWNAIDAMNHPTFPAPAMLPLQQVV 100 90 AGGFVPANQPRPPSPTEISYFNLTGG

D D

30

30

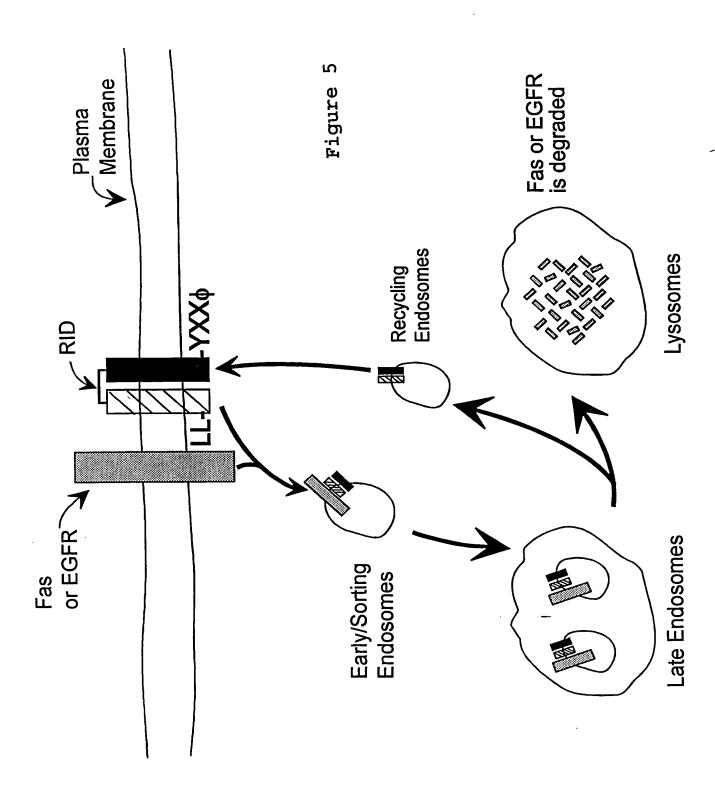
60

#### Figure 4D

Title: Inventor(s): Appln. No. Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

6/85



Title:

Inhibiting Apoptosis Adenovirus RID Protein

Inventor(s): Appln. No. Docket #

William S.M. Wold 09/111,911

66153-5587

7 / 85

rec700, anti-DPB



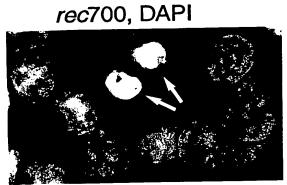
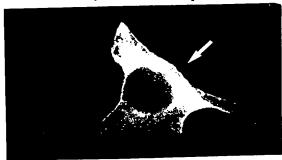


Figure 6A

Figure 6B

RID, anti-RID $\beta$ 



RID, DAPI



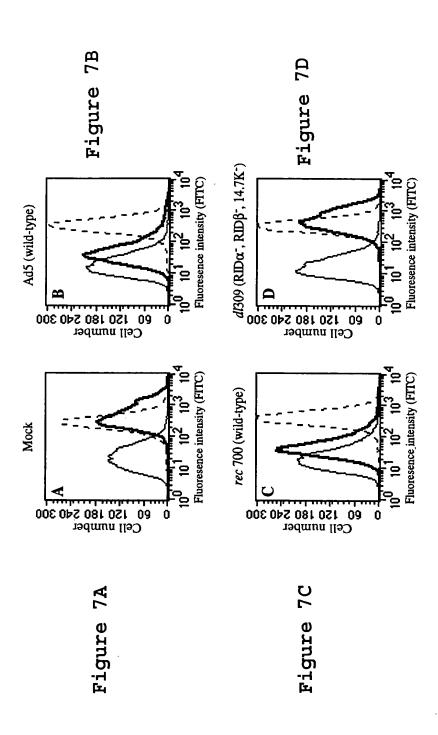
Figure 6C

Figure 6D

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title:

Inventor(s): Appln. No. Docket #



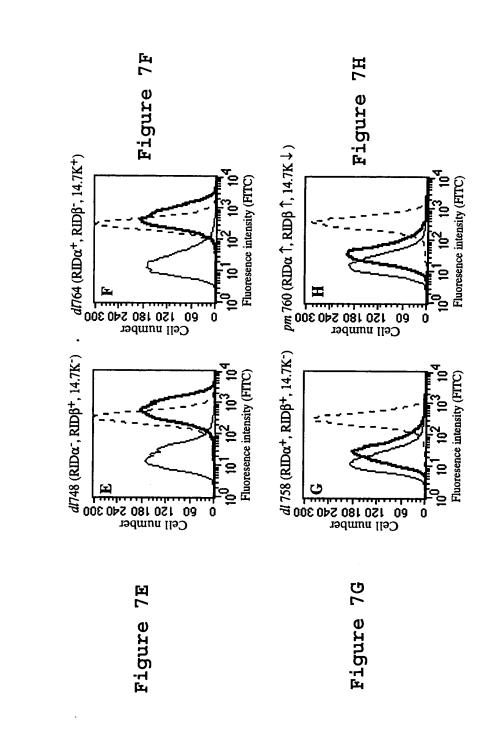


Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title:

Inventor(s): Appln. No. Docket #

9/85



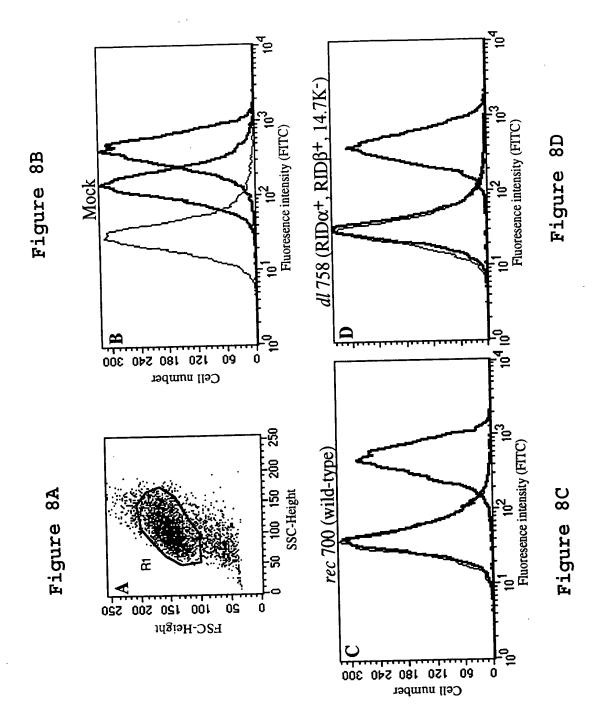


Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold

Inventor(s): William S.M Appln. No. 09/111,911 Docket # 66153-5587

10 / 85

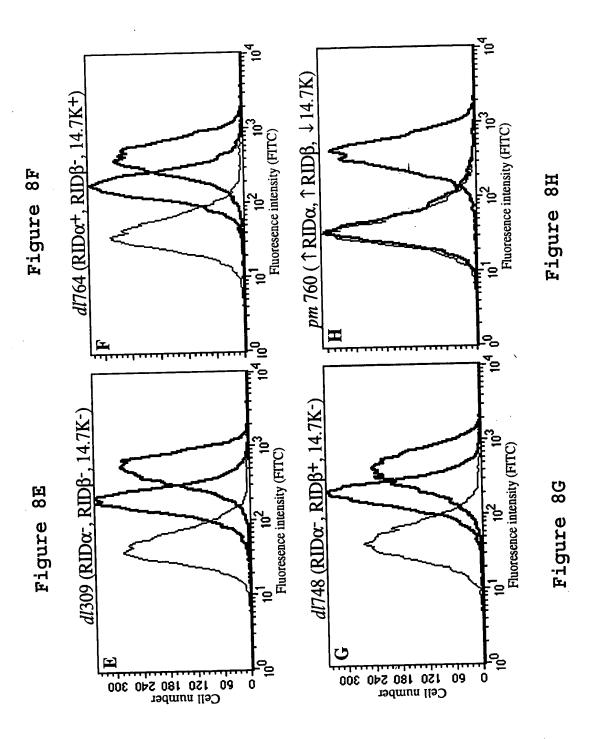




Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold

Inventor(s): William S.M Appln. No. 09/111,911 Docket # 66153-5587

11/85

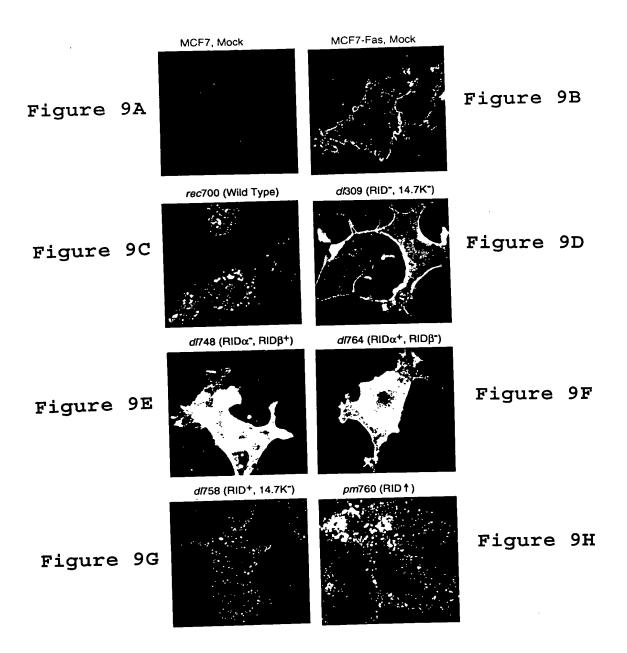


Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold Title:

Inventor(s):

09/111,911 Appln. No. Docket # 66153-5587

12/85



Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold
Appln. No. 09/111,911
Docket # 66153-5587

13 / 85

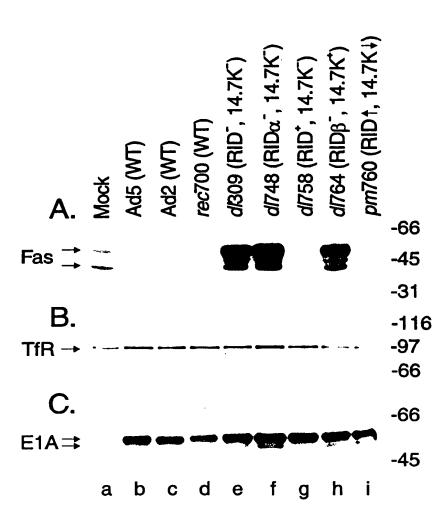
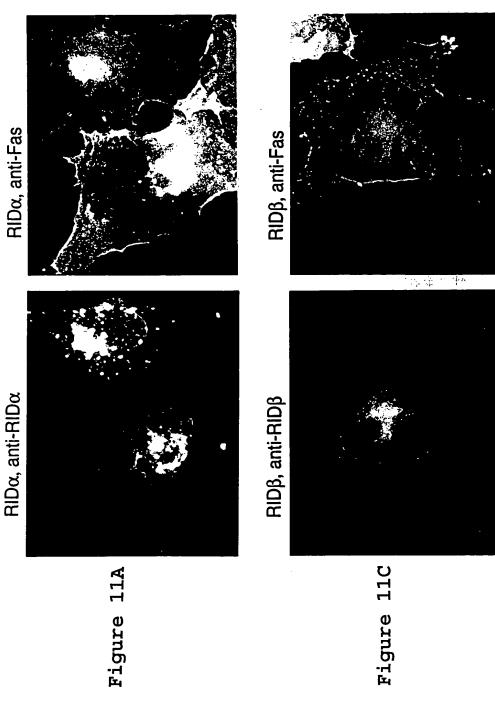


Figure 10

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title: Inventor(s): Appln. No. Docket # 14/85 14/85 Figure Figure RIDβ, anti-Fas

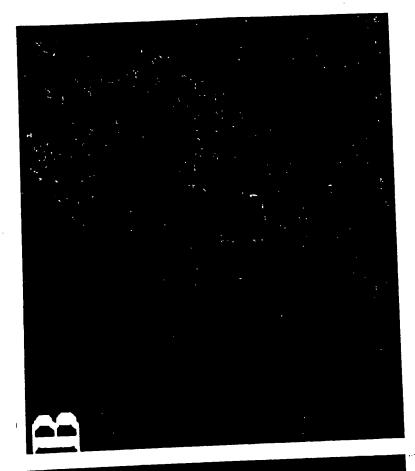


Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title: Inventor(s): Appln. No. Docket # 15 / 85 15/85 Figure 11H Figure 11F RID, anti-Fas RID, anti-Fas RID, anti-RID $\alpha$ RID, anti-RIDB Figure 11E

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

Title: Inventor(s): Appln. No. Docket #

16/85



强

5

Figure 12B

16/85

Figure 12A

Title: Inventor(s): Appln. No. Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

17 / 85

17/85

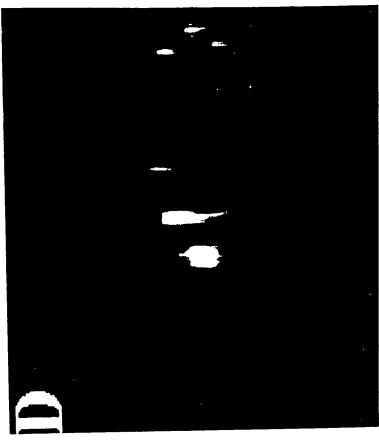


Figure 12D

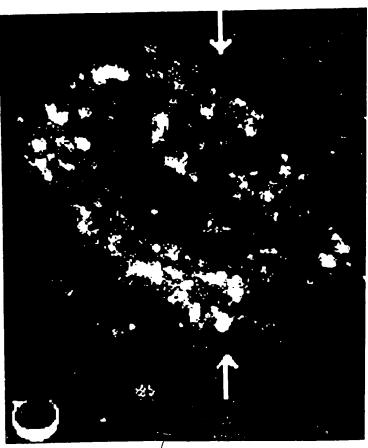


Figure 12C

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title:

Inventor(s): Appln. No. Docket #

18/85

rec700 (WT), Baf

Figure 13B

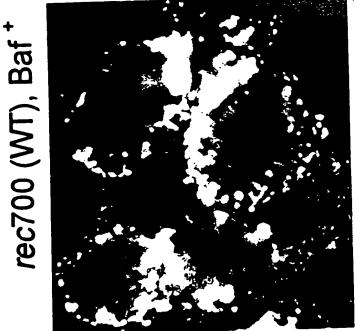


Figure 13A

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title: Inventor(s): Appln. No. Docket #

19/85

19/85

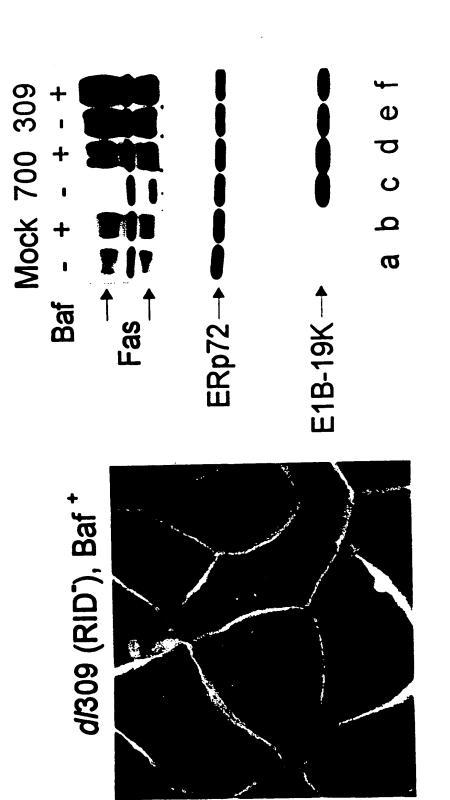


Figure 13D

Figure 13C

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold Appln. No. 09/111,911 66153-5587

---

20 / 85

20/85

Mock 700 309 TfR

Figure 13E

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold

Inventor(s): 09/111,911 Appln. No. Docket #

66153-5587 21/85

Fas 
$$+$$
  $+$   $+$   $+$   $+$   $+$  Shp-1  $+$   $+$   $+$   $+$   $+$  RID $\alpha$   $+$   $+$   $+$  Fas  $-$  Shp-1

Erp72

a b c d e f g

Figure 14

Fas 
$$- - + + + + + +$$
CAT  $- + - + + + +$ 
RID $\alpha$   $- - - - + +$ 
RID $\beta$   $- - - - + +$ 
Fas  $-$ 
CAT

ERp72

a b c d e f g

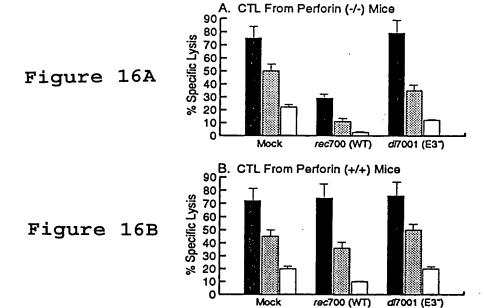
Figure 15

Inhibiting Apoptosis Adenovirus RID Protein Title:

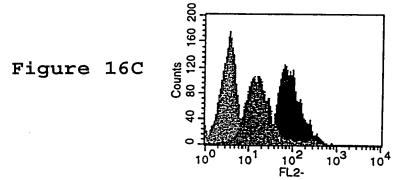
William S.M. Wold Inventor(s): Appln. No.

09/111,911 66153-5587 Docket # 22 / 85

22/85



C. FACS in Infected P815 Cells



Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 Title: Inventor(s): Appln. No.

Docket #

66153-5587

23/85

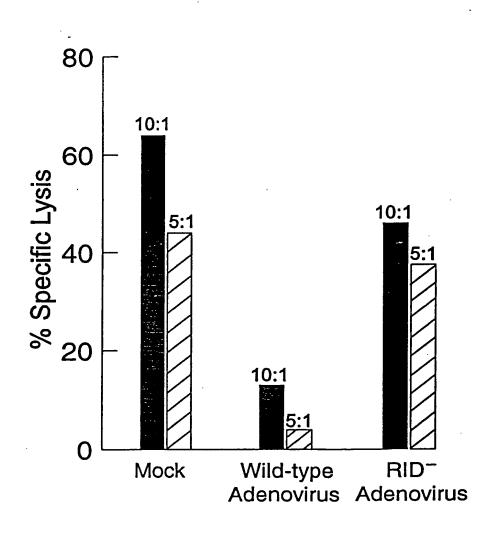
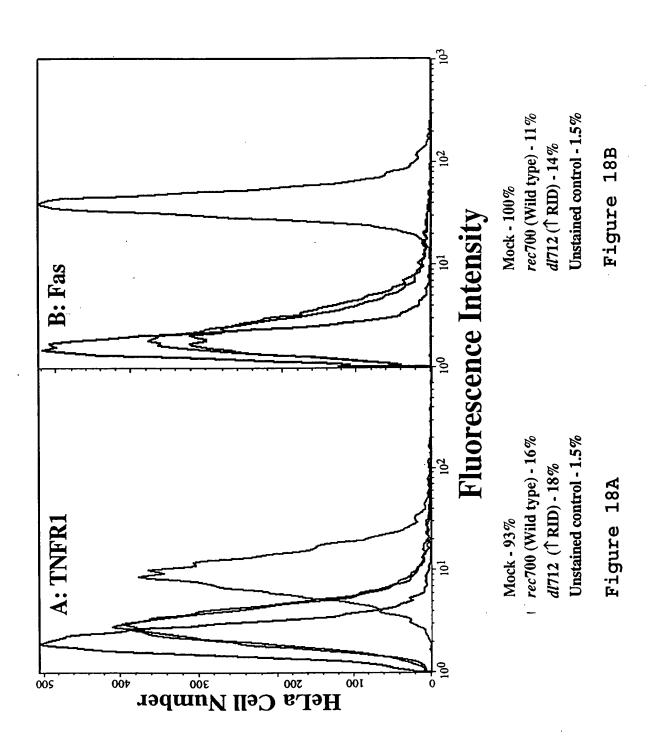


Figure 17

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title: Inventor(s):

Appln. No. Docket #

24/85



Title:

Inhibiting Apoptosis Adenovirus RID Protein

Inventor(s): Appln. No.

William S.M. Wold 09/111,911

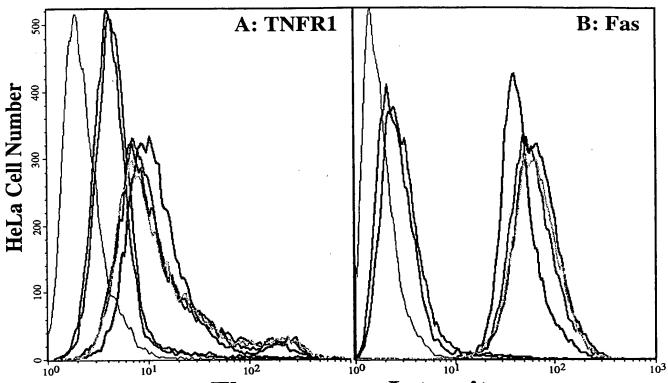
Docket # 66153-5587

25 / 85

25/85

Figure 19A

Figure 19B



# **Fluorescence Intensity**

Mock - 92% rec700 (Wild type) - 29% dl753 (RID $\alpha$ -) - 85% dl764 (RID $\beta$ -) - 84% dl712 (†RID)- 24% dl309 (RID=) = 84% Unstained Control - 2%

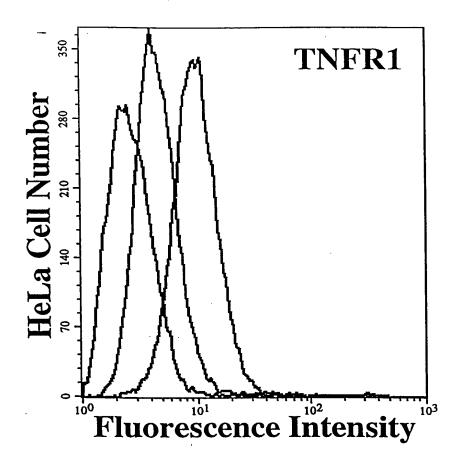
Mock - 100%
rec700 (Wild type) - 4%
dl753 (RIDα-) - 100%
dl764 (RIDβ-) - 100%
dl712 (†RID) - 2%
dl309 (RID-) - 100%
Unstained Control - 1%

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold

Inventor(s): 09/111,911 Appln. No. 66153-5587 Docket #

26/85





Mock - 93% 231-10 (E3+ vector) 24 hr. p.i. - 35% 231-10 (E3+ vector) 48hr. p.i. - 11%

Figure 20

Title: Inventor(s): Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

Appln. No. Docket #

09/111,911 66153-5587

27 / 85

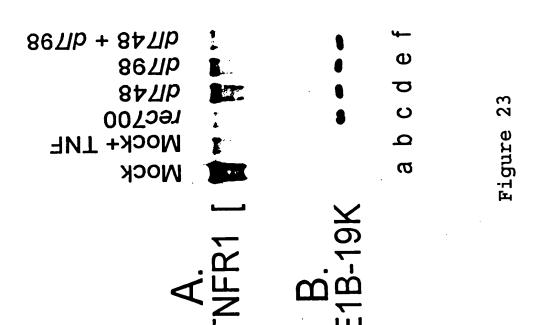
Title: Inventor(s): Appln. No. Docket # Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

28 / 85

Моск	2			ح
	5			D
0	4		<b>1</b> 1	4-
231-10	e e	•	14.	മ
33	2	Ĭ		0
2	~	Ţ	.•	ပ
rec700		•		p
Mock				$\boldsymbol{\sigma}$
A20M4				
	·-:			
	Days p.i	2		
	<b>S</b>		$\overline{\Theta}$	
	Sa	<u> </u>		
	لـــا	TNFR1	RIDß	
		_	سام ا	
		<u>,                                    </u>	$\sim$	
	•	<	لبلبا	

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold Inventor(s): 09/111,911 66153-5587 Appln. No.

Docket # 29 / 85



Title: Inventor(s): Appln. No. Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

30 / 85



Figure 24

Title: Inventor(s): Appln. No. Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

31 / 85



Figure 25

Title: Inventor(s): Appln. No.

Docket #

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911 66153-5587

32 / 85

32/85

Tumor Control

RIDβ ₹ ₩

14.7K **=** =

gp19K→

a b

Figure 26

Title: Inventor(s): Appln. No.

Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold

William S.M. V 09/111,911 66153-5587

33 / 85

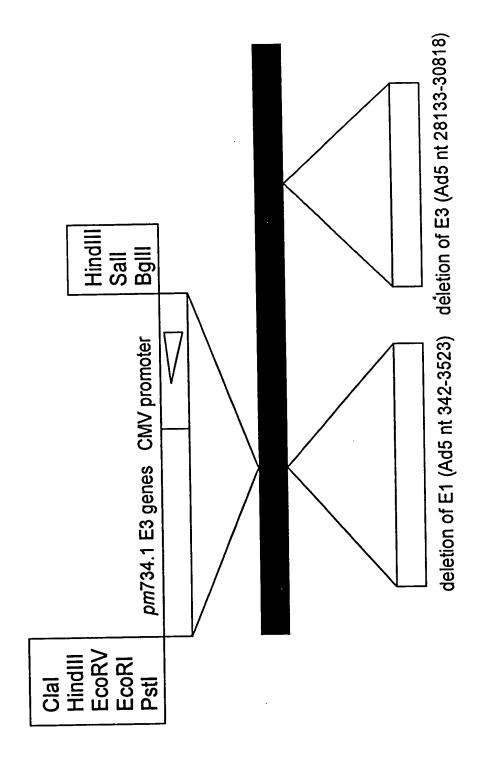


Figure 27

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold O9/111,911 Oocket # 66153-5587

catcatcaataatataccttattttggattgaagccaatatgataatgagggggtggagt 1+ 60 1+ 60		
1		
ttgtgacgtggcgcggggcgtgggaacggggtgacgtagtagtgtgggggaagtgt  ttgtgacgtggcgggggggggg		
AflIII  BspLU11I  EciI  NspI         gatgttgcaagtgtggcgaacacatgtaagcgacggatgtggcaaaagtgacgtttttg  ctacaacgttcacacgccttgtgtacattcgctgcctacaccgttttcactgcaaaaac		
BsrGI  BsrFI   Ecil  SgrAI TatI   I		
181		
MscI EaeI		
taaatttgggcgtaaccgagtaagatttggccattttcgcggggaaaactgaataagagga taaatttgggcgtaaccgagtaagattttggccattttcgcggggaaaactgaataagagga  241 atttaaacccgcattggctcattctaaaccggtaaaagcgcccttttgacttattctcct		
ApoI HindIII EcoRI ClaI   EcoRV		
agtgaaatctgaataattttgtgttactcatagcgcgtaatatcgataagcttgatatcg 301+ 360 tcactttagacttattaaaacacaatgagtatcgcgcattatagctattcgaactatagc		
BciVI  PstI   BssHII  SfcI   Eco57I   BssHII		
aatteetgeageeetatggatacacggggttgaaggtatetetatggatggasggasggasggasggasggasggasggasg		
TaqII		
XcmI		
ttccatttagattgtggagaaagtttgcagccaggaggaagctgcaataccagagctggg 481+ 540 aaggtaaatctaacacctctttcaaacgtcggtcctccttcgacgttatggtctcgaccc		
BseRI BspGI ApoI		
BstYI HgiEII	Figure	28A
aagtgatgctttattattttttttattagttaaagggaataagatctttgagaccgcac		
601thermost transfer of the first tran		

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title: Inventor(s): Appln. No. Docket #

35 / 85

35/85								
	EcoOl09I Psp5II							
	Sse8647I							
	BSCII   BSGII							
c c 1	agggtcttaataagggtgcagagatcctcaggtccttgacaaggtgagtga	20						
661	tcccagaattattcccacgtctctaggagtccaggaactgttccactcact							
	toggetttotaccaagtgctgagttatggtaatgggcttttctcccaccatgaccaccaat							
721		780						
	agccaaagatggctcacgactcaataccattacccgaaaagagggtggtactggtggtta							
	Bpu10I BsaWI Pf11108I							
	ttctgacgcttggttggcaacttgtagctaaggcggtgttccggtggtattactgtcgtag							
781		340						
	aagactgcgaaccaaccgttgaacatcgattccgccacaggccaccataatgacagcatc							
	HincII HpaI							
	naet -							
0.4.1	gtgactttggcctgctttaccagacaaaagataccccttttgcactggtgcaagttaacc	900						
841	cactgaaaccggacgaaatggtctgttttctatggggaaaacgtgaccacgttcaattgg							
	MspAlI		*					
	BanII BsiEI							
	BsiHKAI EaeI   ! Bsp1286I EagI   !							
1	PflMI SacI GdiII							
	atgtcttggagctcttgattcatgcgctgttgctcggccgctgccctgcgtctttctagc							
901		960						
	tacagaacctcgagaactaagtacgcgacaacgagccggcgacgggacgcagaaagatcg							
	Haell Bglll Alwntl BstYl							
	AlwNI  BSCYI stAPI  XbaI   BseRI							
961		1020						
	tccgcgacgagacattattaaggcaggtaaagatctagatcccacagtcagt							
	tgttagattaaagtagctgatttcagtgggggtgggagaagtggggcgaggctgattggc	1000						
1021	acaatctaatttcatcgactaaagtcaccccacctcttcaccccgctccgactaaccg	1080						
	BsrFI NgoAIV BtsI TaqII							
	1							
1081	tgggacaaagccggcagcaacaacttgttgcagtggaagcatagcggggcgcggggaaagt	1140						
	accetgtttcggcggccgttgttgaacaacgtcacettcgtatcgcccgcgcccctttca							
	DrdII Bsp24I Bsp24I							
	tgggtggttcatggcatctattcgtttccagccaatgtcaaggtagggatatatagctag							
1141		1200						
	acccaccaagtaccgtagataagcaaaggtcggttacagttccatccctatatatcgatc							
	PstI							
	SfcI   							
1000	ggctaagatggtactgcagaacaccataacagagatgattgcatataaccaggcttcgga	1260						
1201	ccgattctaccatgacgtcttgtggtattgtctctactaacgtatattggtccgaagcct							
	SspI							
1261	aagatcgcttttttcattgtagcaacttggaatattccatatacgagtgaatctgcatga	1320						
1201	ttctagcgaaaaagtaacatcgttgaaccttataaggtatatgctcacttagacgtact							
	tatatgtetttgaggettggaggteggggaacaaaacgeagatagggtgeaaataateag	•						
1321		1380						
	atatacagaaactccgaacctccagccccttgttttgcgtctatcccacgtttattagtc							
	Apol FooRI SfcI							
	Apol	•	•					
120-	cagaaaagtcacagtaaatttcataattaaagaattctgagaagatcagctatagtcctg	1440						
1381	gtcttttcagtgtcatttaaagtattaatttcttaagactcttctagtcgatatcaggac							
Bau36I BarDI Figure 28B								
	BanI   FspI  BmrI	9						
	tctctgtattgcggatggtgcctgaggtacgcaatgcgcacacaaacccagtcaatgaac							
1441		1500						

09/111,911 Appln. No. 66153-5587 Docket # 36 / 85 agagacataacgcctaccacggactccatgcgttacgcgtgtgttttgggtcagttacttg 36/85 SfcI tgaatgaaggcgatgactacagtgacgaggctgcagatgaggataagggtgacaaatccg 1501 acttacttccgctactgatgtcactgctccgacgtctactcctattcccactgtttaggc MspA1I! BsiEI || BstDSI || taaagcaggtaaactgtgaaaggtgggatgcaatctacttcgatgtgagcgaccgcggcc atttcgtccatttgacactttccaccctacgttagatgaagctacactcgctggcgccgg SmlI XhoI Bsp1286I aatgtagagcacgcacagaaaagcgcaacaagggtcaataatataagaactcgaggaatc 1621 ttacatctcgtgcgtgtcttttcgcgttgttcccagttattatattcttgagctccttag EarI atgtctcatttaatcatactgtaaaagaagagaacatggtttcagaccgtccaatctatg tacagagtaaattagtatgacattttcttctcttgtaccaaagtctggcaggttagatac SfcI HaeIV HaeI | RSIHKAI StuI Bsp1286I aattttttcattgtgtgggttgagcacaatgataggcctatagatggggggtctggcgcg ttaaaaaagtaacacacccaactcgtgttactatccggatatctaccccccagaccgcgc Bsp24I HaeII Tth111II Bsp24I BmrI | Tth111II ggaaaaccaccacaagtccaagctcgcccagtcattgacaaaggcatgaacttggggtaa 1861 ccttttggtggtgttcaggttcgagcgggtcagtaactgtttccgtacttgaaccccatt RleAI BsaWI BtsI BsbI atttagggcagatgttagtccggtagcagtggtgttgcgatagtccgttgtgggcgcgat 1921 taaatcccgtctacaatcaggccatcgtcaccacaacgctatcaggcaacacccgcgcta Eco57I BclI Apol BsrFI ggttgagccggtcaactctggagcaggcaagctgaagctgggtttgatcaaatttgcagt ccaactcggccagttgagacctcgtccgttcgacttcgacccaaactagtttaaacgtca HaeII BspGI AlwNII gcaggcgctggcagaaatcaggcgctaacgtccaggaaagtttgatttgaaggttgtggg cgtccgcgaccgtctttagtccgcgattgcaggtcctttcaaactaaacttccaacaccc BSDGI BpmI RleAI I tataatcttgcccgcctggagcatatcccacatagagtaaattgtccaggggaatacaag atattagaacgggcggacctcgtatagggtgtatctcatttaacaggtccccttatgttc Figure 28C caagcggaaaatcaaggcattttcttttcatcaataaaactgcgtctgcttttgtatttg

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

Title:

Inventor(s):

```
Inhibiting Apoptosis Adenovirus RID Protein
         Title:
         Inventor(s):
                       William S.M. Wold
                       09/111,911
         Appln. No.
         Docket #
                       66153-5587
                                 37 / 85
     gttcgccttttagttccgtaaaagaaaagtagttattttgacgcagacgaaaacataaac
                                                                         37/85
                                HaeII
                                                               BanI
                                               BsrBI
                           Eco47III
     agataaagtaaggtacataccaaagcaagcgctgtaataagcagagcggtggaacaaaag
2221
     tctatttcattccatgtatggtttcgttcgcgacattattcgtctcgccaccttgttttc
                                                             MslI
                                                          BsrGI
                                  Tth111II TatI
                                                           TatI
               RleAI
                        MslT
     gtgccagtgttctctaaacacttttgtgggggccacaacttgtactgtttgctcatgtac
2281
      cacggtcacaagagatttgtgaaaacacccccggtgttgaacatgacaaacgagtacatg
     atggtaatatcgcacatttcataaaatggaaatttatacataaaagttttacgattttca
                                                                    2400
2341
      taccattatagcgtgtaaagtattttacctttaaatatgtattttcaaaatgctaaaagt
 StyI
              BbsI
                      DrdI
      ccttggaagactgtgacattatagtcgttagtgtcacctggctgccaaatagcatataca
2401
                                                                    2460
      ggaaccttctgacactgtaatatcagcaatcacagtggaccgacggtttatcgtatatgt
      gcatacttgccaattttgtctttgtggcgaataataagcttttcatgttctgtggtgcat
2461
      cgtatgaacggttaaaacagaaacaccgcttattattcgaaaagtacaagacaccacgta
                                     DraI
                                                          DrdII
                                     Swa I
                                            BsrDI
      tttataagagtagtgcattcattagcttctgatttaaatgtaacattgcaagctggttcc
2521
      aaatattctcatcacgtaagtaatcgaagactaaatttacattgtaacgttcgaccaagg
                          HaeII
                     Eco47III | PstI
                                          BglI
      \verb|ttaaactcaacctttttggcagcgctgcagactgccgcaagggcgagcaagcctaaaatc|
      aatttgagttggaaaaaccgtcgcgacgtctgacggcgttcccgctcgttcggattttag
      atgtacctcatcttggatgttgcccccagcgtttaaaaagctgacaataggtacaaacgt
2641
      tacatggagtagaacctacaacgggggtcgcaaatttttcgactgttatccatgtttgca
                          BsgI
                    Bsu36I
                                 MslI
      gcgtgcagcaggcggcaaccctaaggcacagaagtgctagtataagaataaacagaatta
2701
      cgcacgtcgtccgccgttgggattccgtgtcttcacgatcatattcttatttgtcttaat
      caagagtaaggataaccccgaccccaattccagaaaaattagacaagcttgtagagttac
2761
      gttctcattcctattggggctggggttaaggtctttttaatctgttcgaacatctcaatg
                        PacI
      ttgaattgctcatatacttaattaaaaaatcccagcaccccgcaaaatgcttttttgacc
      aacttaacgagtatatgaattaattttttagggtcgtggggggttttacgaaaaactgg
                    BanII
                  BsiHKAI
                 Bsp1286I
                                                                   Figure 28D
                    Hin4I
               Hin4I SacI
                                    BplI BplI
      tgagttccgggagttgagctcacctcctgttttggaaaaatgggagtaatgtctggttac
     . actcaaggccctcaactcgagtggaggacaaaacctttttaccctcattacagaccaatg
         SfcI
                             BsaWI
                                               BspMI
     RleAT
                             BSTFI
                                                             AarI
 Bpu10I
                             PinAI
```

```
Title:
                          Inhibiting Apoptosis Adenovirus RID Protein
            Inventor(s):
                          William S.M. Wold
            Appln. No.
                          09/111,911
            Docket #
                          66153-5587
                                     38 / 85
     gctcaggctgtaggtgtgggcgcagcaaccggtgacgcactcgtacgttcccggcaggtg
                                                                                38/85
     cgagtccgacatccacacccgcgtcgttggccactgcgtgagcatgcaagggccgtccac
     aggagggtggtggtggtgtttttcttgacggtgtagttgaagccgagaaggttgtgt
3001
     tecteccaccaccaccacacaaaaagaactgccacatcaactteggetettecaacaca
                                           EarI
                    BsmBI
                                           SapI
      ggcaaacttacttcgtctcgctggaaactgttgtaaattacaaatgaagagccgttaaag
3061
      ccgtttqaatqaaqcaqagcgacctttgacaacatttaatgtttacttctcggcaatttc
     HaiEII
                                                          TagII
                                     BsaWI
                                              BsaXI
 SexAI
      taccaggtaaggtacttattggcccgcttgtgcaaaccggaggtgaggtttgctttggtc
3121
      atggtccattccatgaataaccgggcgaacacgtttggcctccactccaaacgaaaccag
                                                       Amr T
                                                    BanII
                                                    BSAXI
                                                 Bsp1286I
      tgctttgggtgggtaaaaacggtggcgttcacaggatggcgacaggagccccagtagatt
3181
      acgaaacccacccatttttgccaccgcaagtgtcctaccgctgtcctcggggtcatctaa
                                              BallI
                                 MslI
      ctaatttctgtatttattactcagcacagagatgacaacaaagatcttgatgtaatcc
                                                                    3300
3241
      gattaaagacataaataatatgagtcgtgtctctactgttgtttctagaactacattagg
                                     Eco01091
                                       Psp5II
                                        SanDI
                                               BsrBI BsrBI
                     BstDSI
      agggttaggacagttgcaaaccacggtcagaacacagggaccccgctcccgctccactag
3301
      tcccaatcctgtcaacgtttggtgccagtcttgtgtccctggggcgagggcgaggtgatc
                                     BsaAI
          HaeII
                                   AflIII|TaqII
                                        11
      caggggggcgcttggtaaactcccgaatcaggctacgtgtaagctctacctgggtggtgag
3361
      gtcccccgcgaaccatttgagggcttagtccgatgcacattcgagatggacccaccactc
                       ApaI
                      BanTI
                   Bsp1286I
                     BmaI
                                        EarI
                    BseŠI
     BsaHI
                                        SapI
      ccggacgccgtgcgccgggccctcgatatgctcttcgggcaattcaaagtaacaaaactc
      ggcctgcggcacgcgggcccgggagctatacgagaagcccgttaagtttcattgttttgag
           SacII
         MspA1I
 BsaWI BstDSI | |
                                       BtsI
      accggagccgcggcaaagcacttgtggcggcggcagtggtcgaggtgtgtcaggcgcag
 3481
      tggcctcggcgccgtttcgtgaacaccgccgccgtcaccagctccacacagtccgcgtc
      {\tt tcgctctgcctctccactggtcattcagtcgtagccgtccgccgagtctttcaccgcgtc}
 3541
      agcgagacggagaggtgaccagtaagtcagcatcggcaggcggctcagaaagtggcgcag
                                                                          Figure 28E
                                EaeI
                                           BspGI
                               Gdill
      aaagttgggaataaactggtccgggtagtggccgggaggtccagaaaaggggttgaagta
       tttcaacccttatttgaccaggcccatcaccggccctccaggtcttttccccaacttcat
                                                 BspEI
                                                         Hin4I
       BseRI
```

66153-5587 Docket # 39 / 85 aaccgaaggcacgaactcctcaataaattgtagagttccaatgcctccggagcycyyctc 3661 ttggcttccgtgcttgaggagttatttaacatctcaaggttacggaggcctcgcgcgag 39/85 PstI EaeI BplI GdiII Earl Tth1111 SfcI BsrBI |Hin4| SapI cgaggacgaggtctgcagagttaggatcgcctgacggggcgtaaatgaagagcggccagc gctcctgctccagacgtctcaatcctagcggactgccccgcatttacttctcgccggtcg BseRI AceIII BanII **BsiHKAI** BsaI Bsp1286I BsaWI BspEI HaeII Hin4I SacI  $\tt gccgccgatctgaaatgtcccgtccggacggagaccaagagaggagctcaccgactcgtc$  $\verb|cggcggctagactttacagggcaggcctgcctctggttctctcctcgagtggctgagcag|$ SmaI BamHI BplI AvaI | BstYI  $\tt gttgagctgaatacctcdccctctgattttcaggtgagttataccctgcccgggggGGAT$ 3841  $\verb|caactcgacttatggagcgggagactaaaagtccactcaatatgggacgggcccccCCTA| \\$ AflII SmlI HindII: BanI BanII NheI Bsp24I BSIHKAI SfcI Bsp1286I | DraI Hin4I SacI | KpnI | PmeI CCGAGCTCGGTACCAAGCTTAAGTTTAAACGCTAGCCAGCTTGGGTCTCCCTATAGTGAG 3901 GGCTCGAGCCATGGTTCGAATTCAAATTTGCGATCGGTCGAACCCAGAGGGATATCACTC BanII **BsiHKAI** Bsp1286I VspI SacI TCGTATTAATTTCGATAAGCCAGTAAGCAGTGGGTTCTCTAGTTAGCCAGAGAGCTCTGC 3961 AGCATAATTAAAGCTATTCGGTCATTCGTCACCCAAGAGATCAATCGGTCTCTCGAGACG TTATATAGACCTCCCACCGTACACGCCTACCGCCCATTGCGTCAATGGGGCGGAGTTGT 4021 AATATATCTGGAGGGTGGCATGTGCGGATGGCGGGTAAACGCAGTTACCCCGCCTCAACA BsaHI BanI TACGACATTTTGGAAAGTCCCGTTGATTTTGGTGCCAAAACAACTCCCATTGACGTCAA 4081 TatI TGGGGTGGAGACTTGGAAATCCCCGTGAGTCAAACCGCTATCCACGCCCATTGATGTACT ACCCCACCTCTGAACCTTTAGGGGCACTCAGTTTGGCGATAGGTGCGGGTAACTACATGA **BSEDST** NcoI StyI **BsaAI** TatI MslII SnaBI GCCAAAACCGCATCACCATGGTAATAGCGATGACTAATACGTAGATGTACTGCCAAGTAG  ${\tt CGGTTTTGGCGTAGTGGTACCATTATCGCTACTGATTATGCATCTACATGACGGTTCATC}$ Figure 28F Bsp24I BsaHI TatI BmrI GAAAGTCCCATAAGGTCATGTACTGGGCATAATGCCAGGCGGGCCATTTACCGTCATTGA CTTTCAGGGTATTCCAGTACATGACCCGTATTACGGTCCGCCCGGTAAATGGCAGTAACT Bsp24I AatII NdeI **TatI** BglI

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold Inventor(s): Appln. No. 09/111,911 66153-5587 Docket # 40 / 85 CGTCAATAGGGGGGCGTACTTGGCATATGATACACTTGATGTACTGCCAAGTGGGCAGTTT 40/85 GCAGTTATCCCCCGCATGAACCGTATACTATGTGAACTACATGACGGTTCACCCGTCAAA TagII AatII BsaHI ACCGTAAATAGTCCACCCATTGACGTCAATGGAAAGTCCCTATTGGCGTTACTATGGGAA TGGCATTTATCAGGTGGGTAACTGCAGTTACCTTTCAGGGATAACCGCAATGATACCCTT AatII BglI BsaHI  ${\tt CATACGTCATTATTGACGTCAATGGGCGGGGTCGTTGGGCGGTCAGCCAGGCGGCCAT}$ 4500 GTATGCAGTAATAACTGCAGTTACCCGCCCCAGCAACCCGCCAGTCGGTCCGCCCGGTA TTACCGTAAGTTATGTAACGCGGAACTCCATATATGGGCTATGAACTAATGACCCCGTAA AATGGCATTCAATACATTGCGCCTTGAGGTATATACCCGATACTTGATTACTGGGGCATT AflIII MluI HincII | VspI SpeI . TTGATTACTATTAATAACTAGTCAATAATCAATGTCAACGCGTATATCTGGCCCGTACAT AACTAATGATAATTATTGATCAGTTATTAGTTACAGTTGCGCATATAGACCGGGCATGTA HincII Bsp24T Accil Sallii HindIII NruI Bpu10I Bsp24I AflII SmlI **BSÍHKAI** Bsp1286I 4800 BstDSI

4321

4381

CGCGAAGCAGCGCAAAACGCCTAACCCTAAGCAGATTCTTCATGCAATTcaagcttgtcg 4621 GCGCTTCGTCGCGTTTTGCGGATTGGGATTCGTCTAAGAAGTACGTTAAGLtcgaacagc BglII **BstYI** acagatcttgggcgtggcttaagggtgggaaagaatatataaggtgggggtcttatgtag tgtctagaacccgcaccgaattcccaccctttcttatatattccacccccagaatacatc  $\verb|tttgtatctgttttgcagcagccgccgccatgagcaccaactcgtttgatggaagc|\\$ aaaacatagacaaaacgtcgtcggcggcggcggtactcgtggttgagcaaactaccttcg BanII NCOI BsiHKAI StvI Bsp1286I NspI SphI SacI  $\verb|attgtgagctcatatttgacaacgcgcatgcccccatgggccggggtgcgtcagaatgtg|$ taacactcgagtataaactgttgcgcgtacgggggtacccggccccacgcagtcttacac Pf11108I BsaI BanII Bsp24I| Bsp1286I atgggctccagcattgatggtcgccccgtcctgcccgcaaactctactaccttgacctac 4920 tacccgaggtcgtaactaccagcggggcaggacgggcgtttgagatgatggaactggatg Pst I SfcI Eco5711 Tth111I AlWNII Hin4II SfcI MmeI || MspA1I|PstI Bsp24I Ecil gagaccgtgtctggaacgccgttggagactgcagcctccgccgccgcttcagccgctgca ctctggcacagaccttgcggcaacctctgacgtcggaggcggcggcgaagtcggcgacgt BanII SacII Figure 28G MspA1II Bsp1286I BstAPI Bpu10I BstDSI || gccaccgccgcgggattgtgactgactttgctttcctgagcccgcttgcaagcagtgca cggtggcgggcgccctaacactgactgaaacgaaaggactcgggcgaacgttcgtcacgt BsqI

```
Inhibiting Apoptosis Adenovirus RID Protein
                          William S.M. Wold
              Inventor(s):
                          09/111,911
              Appln. No.
              Docket #
                           66153-5587
                                    41 / 85
                                             MunI
                            HincII
              EciI |
  Tth111II
                                                                    41/85
     gcttcccgttcatccgcccgcgatgacaagttgacggctcttttggcacaattggattct
      cgaagggcaagtaggcggcgctactgttcaactgccgagaaaaccgtgttaacctaaga
                              AlwNI
                                      BspMI
                              MspA1I
       SmaI
                              PvuII BstYI
                 MmeI
      AvaI |
      ttgacccgggaacttaatgtcgtttctcagcagctgttggatctgcgccagcaggtttct
      aactgggcccttgaattacagcaaagagtcgtcgacaacctagacgcggtcgtccaaaga
                                                       XcmI
                                DraI
                      Eco57I
        BalI
      5220
      BSSHII
                                              BssHII |
                          Tch111II
          BsaBI Bsp24I
      5280
      MspA1I
              HaeIV
              Hin4I
                            Eco01091
           TaqII
                        BsiEI
        SmaI
                                                    PflMI
                       BsaI
                              Psp5II
      AvaI |
       taggcccgggaccagcggtctcggtcgttgagggtcctgtgtattttttccaggacgtgg
 5281
       atccgggccctggtcgccagagccagcaactcccaggacacataaaaaggtcctgcacc
       taaaggtgactctggatgttcagatacatgggcataagcccgtctctgggggtggaggtag
  5341
       atttccactgagacctacaagtctatgtacccgtattcgggcagagaccccacctccatc
        BtsI
                                 BsbI
        SfcI
       caccactgcagagcttcatgctgcggggtggtgttgtagatgatccagtcgtagcaggag
       gtggtgacgtctcgaagtacgacgccccaccacaacatctactaggtcagcatcgtcctc
    HaeII
                                                  Eco01091
Eco47III
            BanI
       cgctgggcgtggtgcctaaaaatgtctttcagtagcaagctgattgccaggggcaggccc
       gcgacccgcaccacggatttttacagaaagtcatcgttcgactaacggtccccgtccggg
                          TagII
       ttggtgtaagtgtttacaaagcggttaagctgggatgggtgcatacgtggggatatgaga
       aaccacattcacaaatgtttcgccaattcgaccctacccacgtatgcacccctatactct
      NsiI
        tgcatcttggactgtatttttaggttggctatgttcccagccatatccctccggggattc
        acgtagaacctgacataaaaatccaaccgatacaagggtcggtatagggaggcccctaag
                                     BciVI
                                   BSIHKAI
                                  Bsp12861
                                   BseSI
                                  ApaLI |
                              BsaWI
                                            IoqA
              DrdII
                            BsgI
        atgttgtgcagaaccaccagcacagtgtatccggtgcacttgggaaatttgtcatgtagc
   5641
        tacaacacgtcttggtggtcgtgtcacataggccacgtgaaccctttaaacagtacatcg
                                                                   Figure 28H
                       BsmBI
                               BsaHI
        ttagaaggaaatgcgtggaagaacttggagacgcccttgtgacctccaagattttccatg
   5701
        aatcttcctttacgcaccttcttgaacctctgcgggaacactggaggttctaaaaggtac
```

Title:

```
Appln. No.
                              66153-5587
                Docket #
                                        42 / 85
                            ApaI
                                                                            42/85
                           BanII
                          BstDSI
                          BmgI
              BstXI
                         BseSI
                         BsrDI
  NsiI
             MslI |
     cattcgtccataatgatggcaatgggcccacgggcggcggcctgggcgaagatatttctg
     5761
                  MslI
     ggatcactaacgtcatagttgtgttccaggatgagatcgtcataggccatttttacaaag
      cctagtgattgcagtatcaacacaaggtcctactctagcagtatccggtaaaaatgtttc
5821
      cgcgggcggagggtgccagactgcggtataatggttccatccggcccaggggcgtagtta
      gcgcccgcctcccacggtctgacgccatattaccaaggtaggccgggtccccgcatcaat
5881
      \verb"ccctcacagatttgcatttcccacgctttgagttcagatggggggatcatgtctacctgc"
      gggagtgtctaaacgtaaagggtgcgaaactcaagtctacccccctagtacagatggacg
                                        MspA1I
                                         PvuII
    BspMI
      ggggcgatgaagaaacggtttccggggtaggggagatcagctgggaagaaagcaggttc
      ccccgctacttcttttgccaaaggccccatcccctctagtcgacccttctttcgtccaag
                                   ApaI
                                Bsp1286I
                         BsrFI
                                 BmgI
       MspA1I
                                 BseSI
                       HgiEII
Bpu10I
       ctgagcagctgcgacttaccgcagccggtgggcccgtaaatcacacctattaccgggtgc
       gactcgtcgacgctgaatggcgtcggccacccgggcatttagtgtggataatggcccacg
 6061
                        MspA1I
                         PvuII
                                     Bpu10I
                     SfcI
    AceIII
       aactggtagttaagagagctgcagctgccgtcatccctgagcaggggggccacttcgtta
       ttgaccatcaattctctcgacgtcgacggcagtagggactcgtccccccggtgaagcaat
                                                    HaeII
                       NspI
        IqaN
       agcatgtccctgactcgcatgttttccctgaccaaatccgccagaaggcgctcgccgccc
  6181
       tcgtacagggactgagcgtacaaaagggactggtttaggcggtcttccgcgagcgggg
                                                        Ecil
              BstAPI
        agcgatagcagttcttgcaaggaagcaaagtttttcaacggtttgagaccgtccgccgta
        tcgctatcgtcaagaacgttccttcgtttcaaaaagttgccaaactctggcaggcggcat
                                         TaqII
        NspI
                                                    BstEII AarI||
                                      Tth111II
        SphI
        ggcatgcttttgagcgtttgaccaagcagttccaggcggtcccacagctcggtcacctgc
        ccgtacgaaaactcgcaaactggttcgtcaaggtccgccagggtgtcgagccagtggacg
      BspMI
                   BseRI
        tctacggcatctcgatccagcatatctcctcgtttcgcgggttggggcggctttcgctgt
   6361
        agatgccgtagagctaggtcgtatagaggagcaaagcgcccaaccccgccgaaagcgaca
                                                                      Figure 28I
                                                          Eco0109I
                                                BstDSI
                  BSİHKAI
                                                            Psp5II
                                               BcgI
                 Bsp1286I
        acggcagtagtcggtgctcgtccagacgggccagggtcatgtctttccacgggcgcaggg
```

William S.M. Wold

09/111,911

Title:

6421

Docket # 66153-5587 43 / 85 tgccgtcatcagccacgagcaggtctgcccggtcccagtacagaaaggtgcccgcytccc 43/85 HaeI MscI BssHII EaeI | BcgI tectegteagegtagtetgggteaeggtgaaggggtgegeteegggetgegetggeea 6481 aggagcagtcgcatcagacccagtgccacttccccacgcgaggcccgacgcgcgaccggt BsrFI HaeII Eco571 SmlI 111 gggtgcgcttgaggctggtcctgctggtgctgaagcgctgccggtcttcgccctgcgcgt cccacgcgaactccgaccaggacgaccacgacttcgcgacggccagaagcgggacgcgca DrdI BstDSI SacII BssHII MSpAlII EaeI Ncol StyI BspGI BstDSI || GdiII StyI cggccaggtagcatttgaccatggtgtcatagtccagccctccgcggcgtggcccttgg 6601 gccggtccatcgtaaactggtaccacagtatcaggtcggggaggcgccgcaccgggaacc **BseRI** BSSSI HaeII **BsaHI** NarI StyI BanIl cgcgcagcttgcccttggaggaggcgccgcacgaggggcagtgcagacttttgagggcgt gcgcgtcgaacgggaacctcctccgcggcgtgctccccgtcacgtctgaaaactcccgca BsgI agagettgggegegagaaatacegatteeggggagtaggeateegegeegeaggeeeege tctcgaacccgcgctctttatggctaaggcccctcatccgtaggcgcggcgtccggggcg EaeI GdiII BanII BsiHKAI Bsp1286I SacI XcmI  ${\tt agacggtctcgcattccacgagccaggtgagctctggccgttcggggtcaaaaaccaggt}$ 6781 tctgccagagcgtaaggtgctcggtccactcgagaccggcaagccccagtttttggtcca Hin4T BsrFI | ttcccccatgctttttgatgcgtttcttacctctggtttccatgagccggtgtccacgct 6841 aagggggtacgaaaaactacgcaaagaatggagaccaaaggtactcggccacaggtgcga BCe83T BsrBI AvaI SmlI HaeI BstZ17I XhoI Accil SmlI StuI cggtgacgaaaaggctgtccgtgtccccgtatacagacttgagaggcctgtcctcgagcg gccactgcttttccgacaggcacaggggcatatgtctgaactctccggacaggagctcgc SacII MspA11| BstDSI || Hin4I , BspGI BseRII || gtgttccgcggtcctcctcgtatagaaactcggaccactctgagacaaaggctcgcgtcc cacaaggcgccaggaggagcatatctttgagcctggtgagactctgtttccgagcgcagg Figure 28J **BpmI** HaeI  ${\tt aggccagcacgaaggaggctaagtgggaggggtagcggtcgttgtccactagggggtcca}$ 

tccggtcgtgcttcctccgattcaccctccccatcgccagcaacaggtgatcccccaggt

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

7021

Inventor(s): Appln. No.

```
William S.M. Wold
             Inventor(s):
                          09/111,911
             Appln. No.
                          66153-5587
             Docket #
                                   44 / 85
                                   44/85
                        NspI
                     BbsI
                    PshAI
                   AflIII
                 BspLU11I
                                   EarI
     7081
     BsaAI
               PmlI
                                              Eco57I
           HaeI
     tgtaggtgtaggccacgtgaccgggtgttcctgaaggggggctataaaagggggtggggg
7141
     acatccacatccggtgcactggcccacaaggacttccccccgatattttcccccaccccc
                                            PflMI
                                                       Scal
                                         MspA1I
                                          PvuII
                                                      TatI |
                      EarI
     cgcgttcgtcctcactcttccgcatcgctgtctgcgagggccagctgttggggtgagt
7201
     gcgcaagcaggagtgagagaaggcgtagcgacagacgctcccggtcgacaaccccactca
     actccctctgaaaagcgggcatgacttctgcgctaagattgtcagtttccaaaaacgagg
7261
     tgagggagacttttcgcccgtactgaagacgcgattctaacagtcaaaggtttttgctcc
                                        EaeI
                     MspA1I|
           BseRI
                   BstDSI ||
                         - 1 1
     7321
     HindIII
      cagaaaagacaatctttttgttgtcaagcttggtggcaaacgacccgtagagggcgttgg
7381
      gtcttttctgttagaaaaacaacagttcgaaccaccgtttgctgggcatctcccgcaacc
                                         BsiEI
                                                      Eaell
                                                     GdiIII
                                          PvuI
                                                   StyI
                                      NruI
      {\tt acagcaacttggcgatggagcgcagggtttggtttttgtcgcgatcggcgcgctccttgg}
 7441
      tgtcgttgaaccgctacctcgcgtcccaaaccaaaacagcgctagccgcgaggaacc
                  BsaAI BssHII
      ccgcgatgtttagctgcacgtattcgcgcgcaacgcaccgccattcgggaaagacggtgg
 7501
      ggcgctacaaatcgacgtgcataagcgcgcgttgcgtggcggtaagccctttctgccacc
                    BsiHKAI
                    Bsp1286 I
                    BseSI
                   ApaLI
                 BstAPI |
                 DraIII
            Bsp1286I
              SexAI
             Bmg I |
                                                    HincII
                               MspA1I|
            BseSI
                                               Tth111I
                                  I ||
            BanIl
      tgcgctcgtcgggcaccaggtgcacgcgccaaccgcggttgtgcagggtgacaaggtcaa
 7561
      acgcgagcagcccgtggtccacgtgcgcggttggcgccaacacgtcccactgttccagtt
                                               RSIET
                                             EaeI
                                             EagI
                                            Gdill
                           HaeII
                                   BspGI
                                             NotI
   BsgI
      cgctggtggctacctctccgcgtaggcgctcgttggtccagcagaggcggccgcccttgc
 7621
      gcgaccaccgatggagaggcgcatccgcgagcaaccaggtcgtctccgccggcgggaacg
                                                                 Figure 28K
                                                  BstDSI
                                    BsmBI
      gcgagcagaatggcggtagggggtctagctgcgtctcgtccgggggggtctgcgtccacgg
       cgctcgtcttaccgccatcccccagatcgacgcagagcaggccccccagacgcaggtgcc
```

Title:

Title: Inhibiting Apoptosis Adenovirus RID Protein
Inventor(s): William S.M. Wold
Appln. No. 09/111,911
Docket # 66153-5587
45 / 85

45/85

```
SmaI
                BssHII
       AvaI |
     taaagaccccgggcagcaggcgcgcgtcgaagtagtctatcttgcatccttgcaagtcta
     atttctggggcccgtcgtccgcgcgcagcttcatcagatagaacgtaggaacgttcagat
                                                   BstDSI
                                             Eco01091
                                               Psp5II NcoI
                         RSSHIT
   HaeII
                       BssHII |
     gcgcctgctgccatgcgcgggcggcaagcgcgctcgtatgggttgagtgggggacccc
     cgcggacgacggtacgcgccgccgttcgcgcgcgagcatacccaactcacccctgggg
    PflMI
 TaqII |
     atggcatggggtgggtgagcgcggaggcgtacatgccgcaaatgtcgtaaacgtagaggg
7861
     taccgtaccccacccactcgcgcctccgcatgtacggcgtttacagcatttgcatctccc
                                      MSDA1II
  BanII
                                    BstDSI ||
Bsp1286I
                 BplI
     gctctctgagtattccaagatatgtagggtagcatcttccaccgcggatgctggcgcgca
     cgagagactcataaggttctatacatcccatcgtagaaggtggcgcctacgaccgcgcgt
BsaAI
     cgtaatcgtatagttcgtgcgagggagcgagggtcggggaccgaggttgctacgggcgg
7981
     gcattagcatatcaagcacgctccctcgctcctccagccctggctccaacgatgcccgcc
                                    NspI
                                         Eco57I
                    BbsI
                                  MmeI |
                                     ΤÍ
     gctgctctgctcggaagactatctgcctgaagatggcatgtgagttggatgatatggttg
8041
     cgacgagacgagccttctgatagacggacttctaccgtacactcaacctactataccaac
                        BsaI
                     BsaHI |
              BbsI
     8101
      AceIII
                                          BspMI
                   HincII |
                             BstEII | DrdI
      cgtaggagtcgcgcagcttgttgaccagctcggcggtgacctgcacgtctagggcgcagt
      gcatcctcagcgcgtcgaacaactggtcgagccgccactggacgtgcagatcccgcgtca
    BspGI
      ggttgaggacaaactcttcgcggtctttccagtactcttggatcggaaacccgtcggcct
      ccaactcctgtttgagaagcgccagaaaggtcatgagaacctagcctttgggcagccgga
                      NspI
                             HincII
      ccgaacggtaagagcctagcatgtagaactggttgacggcctggtaggcgcagcatccct
      ggcttgccattctcggatcgtacatcttgaccaactgccggaccatccgcgtcgtaggga
                                  TagII
                                                            Figure 28L
                                RleAI
                               BsaWI |
                         BglI BspEI
      tttctacgggtagcgcgtatgcctgcgcggccttccggagcgaggtgtggggtgagcgcaa
      aaagatgcccatcgcgcatacggacgcgccggaaggcctcgctccacacccactcgcgtt
                                                     Ecil
      aggtgtccctgaccatgactttgaggtactggtatttgaagtcagtgtcgtcgcatccgc
```

```
Docket #
                               66153-5587
                                          46 / 85
  8461 ---
        tccacagggactggtactgaaactccatgaccataaacttcagtcacagcagcgtaggcg
                                                                                        46/85
        cctgctcccagagcaaaaagtccgtgcgctttttggaacgcggatttggcagggcgaagg
  8521
        ggacgagggtctcgtttttcaggcacgcgaaaaaccttgcgcctaaaccgtcccgcttcc
                                                                Psp5II
         EarI
                                                                 SanDI
        tgacatcgttgaagagtatctttcccgcgcgaggcataaagttgcgtgtgatgcggaagg
  8581
        {\tt actgtagcaacttctcatagaaagggcgcgctccgtatttcaacgcacactacgccttcc}
                                               BSIHKAI
                                              Bsp1286I
        \tt gtcccggcacctcggaacggttgttaattacctgggcggcgagcacgatctcgtcaaagc
  8641
        cagggccgtggagccttgccaacaattaatggacccgccgctcgtgctagagcagtttcg
                                    RleAI
        cgttgatgttgtggcccacaatgtaaagttccaagaagcgcgggatgcccttgatggaag
  8701
        gcaactacaacaccgggtgttacatttcaaggttcttcgcgccctacgggaactaccttc
                                                         BSIHKAI
                                                        Bsp12861
                                  BanII
                                                 Bsp1286I
                                BsiHKAI
                               Bsp1286I
                                           Bpu1102I
                    Pf11108I
                                  SacI EarI
                  Eco57I
                                      | SapI
        gcaattttttaagttcctcgtaggtgagctcttcaggggagctgagcccgtgctctgaaa
        cgttaaaaaattcaaggagcatccactcgagaagtcccctcgactcgggcacgagacttt
       BanII
    Bsp12861
                                               BanII
       MmeIII
      BmgI|||
                                             BsiHKAI
     BseŠĪİİİ
                                             Bsp1286I
Eco0109I ||||
        gggcccagtctgcaagatgagggttggaagcgacgaatgagctccacaggtcacgggcca
  8821
        \verb|cccgggtcagacgttctactcccaaccttcgctgcttactcgaggtgtccagtgcccggt|
                          Eco0109I
                            Psp5II
                                                      HaeI
                          Sse86471
                                                      MscI
  BspMI
                AarI
                        NruI
                                                    EaeI |
        \verb|ttagcatttgcaggtggtcgcgaaaggtcctaaactggcgacctatggccatttttctg|
  8881
        aatcgtaaacgtccaccagcgctttccaggatttgaccgctggataccggtaaaaaaagac
        gggtgatgcagtagaaggtaagcgggtcttgttcccagcggtcccatccaaggttcgcgg
                                                                        9000
  8941
        cccactacgtcatcttccattcgcccagaacaagggtcgccagggtaggttccaagcgcc
             BsaI
                                                    RcaI
        ctaggtctcgcgcggcagtcactagaggctcatctccgccgaacttcatgaccagcatga
  9001
        gatccagagcgccgtcagtgatctccgagtagaggcggcttgaagtactggtcgtact
     Bsp1286I
       BssSI
       BmgI||
      BseSI||
                       EcoO1091
                                                               | BsmBI
        agggcacgagctgcttcccaaaggcccccatccaagtataggtctctacatcgtaggtga
  9061
        \verb|tcccgtgctcgacgaagggtttccgggggtaggttcatatccagagatgtagcatccact|
                                                    BsaXI
                                                                         Figure 28M
                                                    AloI
                                      BsiEI
                                                   BstYI
                                                                   MunI
                                       PvuI
                                                   UbaLI |
```

caaagagacgctcggtgcgaggatgcgagccgatcgggaagaactggatctcccgccacc

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold Appln. No. 09/111,911 66153-5587

gtttctctgcgagccacgctcctacgctcggctagcccttcttgacctagagggcggtgg 47/85 PflMI BseRI  ${\tt aattggaggagtggctattgatgtggtgaaagtagaagtccctgcgacgggccgaacact}$ 9181  $\verb|ttaacctcctcaccgataactacaccactttcatcttcagggacgctgcccggcttgtga|\\$ **BSIHKAI** Bsp1286I BseSI|| ApaLI | | | BsrGI TatI MspAlI 1 111 cgtgctggcttttgtaaaaacgtgcgcagtactggcagcggtgcacgggctgtacatcct ----+ 9300 gcacgaccgaaaacatttttgcacgcgtcatgaccgtcgccacgtgcccgacatgtagga ECONI **BsiEI** Bsp1286I gcacgaggttgacctgacgaccgcgcacaaggaagcagagtgggaatttgagcccctcgc cgtgctccaactggactgctggcgcgtgttccttcgtctcacccttaaactcggggagcg SmlI XhoI BbsI Tth111II ctggcgggtttggctggtggtcttctacttcggctgcttgtccttgaccgtctggctgct 9420 gaccgcccaaaccgaccaccagaagatgaagccgacgaacaggaactggcagaccgacga BanII MmeI BspGIi BssHII **BsaXI** Bsp1286I cgaggggagttacggtggatcggaccaccacgccgcgcgagcccaaagtccagatgtccg 9421 9480 gctcccctcaatgccacctagcctggtggtgcggcgctcgggtttcaggtctacaggc BstDSI NcoI Styl PflMI BsiEI AceIII cgcgcggcggtcggagcttgatgacaacatcgcgcagatgggagctgtccatggtctgga gcgcgccgccagcctcgaactactgttgtagcgcgtctaccctcgacaggtaccagacct BsaHI SacII MspA1I| BstDSI || SfcI BanII | BanII BsiHKAI Bsihkai Bsp1286I Bsp1286I |PstI BspMI SacI |SbfI SacI | || |  $\tt gctcccgcggcgtcaggtcaggcgggagctcctgcaggtttacctcgcatagacgggtca$ cgagggcgccgcagtccagtccgccttcgaggacgtccaaatggagcgtatctgcccagt XcmI AlwNI **BsaHI** PflMI 9601 MspA1I BstDSI | | KpnI Hin4I BaeI BanI BaeI accgaacgttctccggcgtaggggcgccgctgatgccatggcgcgccgccgccaccc SacII NsiI Figure 28N MspA1I| HaeIV **BanTT** Bsp1286I BstDSI || StyI Hin4I 1 11  $\verb|ccgcgggggtgtccttggatgatgcatctaaaagcggtgacgcgggcgagcccccggagg|$ 9721 ggcgccccacaggaacctactacgtagattttcgccactgcgcccgctcgggggcctcc

```
William S.M. Wold
              Inventor(s):
              Appln. No.
                           09/111,911
                           66153-5587
              Docket #
                                      48 / 85
                                                  HaeII
          BanII
                                      Bsp1286I BsaHI
                                                                            48/85
          BsaWI
                                        BmgI |
                                                NarI
       Bsp1286I
                                              BanIl
                                       BseSI
          BspEI
                                           1 1
     9781
      atccccccgaggcctgggcggcctctcccccgtccccgtgcagccgcggcgcgccc
              BssHII .
     {\tt caggagctggtgctgcgcgcgtaggttgctggcgaacgcgacgacgcggcggttgatctc}
9841
      gtcctcgaccacgacgcgcatccaacgaccgcttgcgctgctgccgccaactagag
                                   BanII
                                Bsp1286I
             HaeII
          BsaHI
                                  BmaI |
                                 BseSI
          NarI
                                            SmlI
                              BbsI
          BanIl
      ctgaatctggcgcctctgcgtgaagacgacgggcccggtgagcttgagcctgaaagagag
      gacttagaccgcggagacgcacttctgctgcccgggccactcgaactcggactttctctc
                          HincII
                                      BsqI
   Bce83I
      {\tt ttcgacagaatcaatttcggtgtcgttgacggcgtggcctggcgcaaaatctcctgcacgtc}
      aagctgtcttagttaaagccacagcaactgccgccggaccgcgttttagaggacgtgcag
                   HaeIV
                            EaeI
                                                      Earl BstYI
   BsmBI
                   Hin4I
                           GdiII
      tcctgagttgtcttgataggcgatctcggccatgaactgctcgatctcttcctcctggag
10021
      aggactcaacagaactatccgctagagccggtacttgacgagctagagaaggaggacctc
                     BstDSI
                 BpmI MmeI
      atctccgcgtccggctcgctccacggtggcggcgaggtcgttggaaatgcgggccatgag
10081
      tagaggcgcaggccgagcgaggtgccaccgccgctccagcaacctttacgcccggtactc
                                              AccI
                     HaeI
                                           SfcI
                     StuI
       ctgcgagaaggcgttgaggcctccctcgttccagacgcggctgtagaccacgccccttc
10141
       gacgctcttccgcaactccggagggagcaaggtctgcgccgacatctggtgcgggggaag
                                              BsaAI
                                               PmlI
                                          BanII
                                        BSIHKAI
                                       Bsp1286I
                                 BspMI
           BssHII
                          AarI
                                           SacI
       ggcatcgcgggcgcgcatgaccacctgcgcgagattgagctccacgtgccgggcgaagac
       ccgtagcgcccgcgtactggtggacgcgctctaactcgaggtgcacggcccgcttctg
                    HaeII
                   AlwNI|
   BbsI
       ggcgtagtttcgcaggcgctgaaagaggtagttgagggtggtggtgtgttctgccac
                                                                   10320
10261
       ccgcatcaaagcgtccgcgactttctccatcaactcccaccaccgccacacaagacggtg
                                                         SmlI
                                            EcoRV
                                                       HaeI
                                                  Styl Stul
                                         Bce83I |
        TatI
                                             1 1
       gaagaagtacataacccagcgtcgcaacgtggattcgttgatatcccccaaggcctcaag
                                                                   10380
       cttcttcatgtattgggtcgcagcgttgcacctaagcaactatagggggttccggagttc
      BstDSI
                                                                    Figure 280
        Ncol
              Pf11108I
        StyI
                                               BmrI BssHII
                        BstDSI
     HaeII | HaeI
       gcgctccatggcctcgtagaagtccacggcgaagttgaaaaactgggagttgcgcgccga
                                                                   10440
       cgcgaggtaccggagcatcttcaggtgccgcttcaactttttgaccctcaacgcgcggct
       HincII
                                     BanII
```

Title:

**HpaI** 

```
Docket #
                              66153-5587
                                        49 / 85
                                  BSIHKAI
                                                                              49/85
    BseRI
                                 Bsp1286I
  BpmI
                                    SacI Tth111I
                              BbsI
            | BsaXI
 BseRI
      cacggttaactcctcctccagaagacggatgagctcggcgacagtgtcgcgcacctcgcg
10441
      gtgccaattgaggaggaggtcttctgcctactcgagccgctgtcacagcgcgtggagcgc
                                                  Eco0109I
             Eco0109I
                             BseRI
                                                 EarI
           SfcI
                           EarI
      ctcaaaggctacaggggcctcttcttcttcttcaatctcctcttccataagggcctcccc
                                                                    10560
10501
       gagtttccgatgtccccggagaagaagaagatagtagaggagaaggtattcccggagggg
       ttcttcttcttctggcggcggtgggggagggggacacggcggcgacgacggcgcaccgg
10561
       aagaagaagaagaccgccgccacccctccccctgtgccgccgctgctgccgcgtggcc
                                     SacII
         HincII
                                   MspA1I|
          AccIl
                                 BstDSI ||
         BsiEI|
                    HaeTT
                              Bsp24I | ||
         SalI||Eco47III |
            111
       gaggcggtcgacaaagcgctcgatcatctccccgcggcgacggcgctggtctcggtgac
10621
       ctccgccagctgtttcgcgagctagtagaggggcgccgctgccgcgtaccagagccactg
         BsiEI
          MmeI
       EaeI
       EagI
                                         RhsT
      Gdill
  Bsp24I
                                     BsaHI
       ggcgcggccgttctcgcgggggcgcagttggaagacgccgccgtcatgtcccggttatg
       ccgcgccggcaagagcgccccgcgtcaaccttctgcggcgggcagtacagggccaatac
                                        HaeII
       ggttggcggggggctgccatgcggcagggatacggcgctaacgatgcatctcaacaattg
10741
       ccaaccgcccccgacggtacgccgtccctatgccgcgattgctacgtagagttgttaac
                              Bpu10I
                        Eco0109I
                                          Hin4I
                                                  BsaWI!
                           Psp5II
                  Ecil
        ttgtgtaggtactccgccgcgagggacctgagcgagtccgcatcgaccggatcggaaaa
 10801
        aacacatccatgaggcggcggctccctggactcgctcaggcgtagctggcctagcctttt
                                                     BstDSI
                                                   BSIHKAI
                                                  Bsp1286I
      AvaI
                                                Bsp24I
                BsaHI
       SmlI
                                            Bpu1102I |
       XhoI
               Bsp24I
        cctctcgagaaaggcgtctaaccagtcacagtcgcaaggtaggctgagcaccgtggcggg
 10861 -
        ggagagetettteegeagattggteagtgteagegtteeateegaetegtggeaeegeee
       MspA1I
                                     Ecil
        cggcagcggcggcggtcgggttgtttctggcggaggtgctgctgatgatgtaattaaa
        gccgtcgcccgccgccagccccaacaagaccgcctccacgacgactactacattaattt
                                 Bce83I
             SmlI
                              HincII
         BsmBI
                               Accil
                                       | Bsp24I
                                                  Styll
                        Ecil
                              Salill
       Bsp24II
                                 111
        gtaggcggtcttgagacggcggatggtcgacagaagcaccatgtccttgggtccggcctg
 10981
        catccgccagaactctgccgcctaccagctgtcttcgtggtacaggaacccaggccggac
                                                                        Figure 28P
                      EaeI
                     Gdill
             BsmI
                                              BspMI
                    BsiEI
            FspI
        ·ctgaatgcgcaggcggtcggccatgccccaggcttcgttttgacatcggcgcaggtcttt
 11041
         gacttacgcgtccgccagccggtacggggtccgaagcaaaactgtagccgcgtccagaaa
                             BsrFI
         gtagtagtettgcatgageetttetaceggeaettettetteteeteetettgteetge
```

William S.M. Wold

09/111,911

Title: Inventor(s):

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold Title:

Inventor(s): Appln. No. Docket # 09/111,911 66153-5587

50 / 85

catcatcagaacgtactcggaaagatggccgtgaagaagaagaggaagaacaygacg

	HaeII BsaHI	50/	<b>′</b> 85	
В	EaeI Narl   BLAPI Ecil Gdill Banl   Earl 			
11161	atetettgcatetategetgeggeggeggeggtttggeegtaggtggegeetettee	11220		
	tagagaacgtagatagcgacgccgccgcctcaaaccggcatccaccgcgggagaagg			
	MslI Eco57I			
11221	agggtacgcacactggggcttcggggagtagccgacttcgtcccgatccagccgctgttg	11280		
	BspMI			
	EcoNI   AhdI MslI   HaeIV  BsgI HaeI AarI     AccI Hin4I			
	gcgctcggctaatatggcctgctgcacctgcgtgagggtagactggaagtcatccatgtc			
11281	cgcgagccgattataccggacgtcgacgcactcccatctgaccttcagtaggtacag	11340		
	HaeI MscI			
	BsbI EaeI   BsgI			
11341	cacaaagcggtggtatgcgcccgtgttgatggtgtaagtgcagttggccataacggacca	11400		
	gtgtttcgccaccatacgcgggcacaactaccacattcacgtcaaccggtattgcctggt  BsmBI			
	BanII   BsiHKAI   AvaI			
Hine Hj	BSp1286I   Smll			
11101	gttaacggtctggtgacccggctgcgagagctcggtgtacctgagacgcgagtaagccct	11460		
11401	caattgccagaccactgggccgacgctctcgagccacatggactctgcgctcattcggga	11100		
	BsaAI AlwNI SnaBI SexAI PflMI BciVI			
11461	cgagtcaaatacgtagtcgttgcaagtccgcaccaggtactggtatcccaccaaaaagtg	11520		
	gctcagtttatgcatcagcaacgttcaggcgtggtccatgaccatagggtggtttttcac			
	EaeI BanII BglII GdiII Bsp1286I BstYI			
11521	cggcggcggctggcggtagagggccagcgtagggtggcggggctccgggggctagagatc	11580		
	gccgccgccgaccgccatctcccggtcgcatcccaccggccccgaggcccccgctctag			
	BsrFI EcoRV MmeI BspGI MslI NgoAIV			
11501	ttccaacataaggcgatgatatccgtagatgtacctggacatccaggtgatgccggcggc			
	aaggttgtattccgctactataggcatctacatggacctgtaggtccactacggccgccg			
	MspAll BssHII FspI   BstAPI			
11641	ggtggtggaggcgcggaaagtcgcggacgcggttccagatgttgcgcagacaaaa	11700		
	ccaccacctccgcgcgcctttcagcgcctgcgccaaggtctacaacgcgtcgccgttttt			
	BstDSI NcoI			
	StyI BSRFI BSSHII iHKAI  EaeI   BSSHII   1286I  GdiII   BglI     HincII XbaI			
-		11760		
	cacgaggtaccagccctgcgagaccggccagtccgcgcgcttagcaactgcgagatctg	11760		
	Bspl286I BmgI   EarI	Figure	28Q	
	BsaXI BseŠI  BstDSI  ApoI			
11761	cgtgcaaaaggagagcctgtaagcgggcactcttccgtggtctggtggataaattcgcaa	11820		
	gcacgttttcctctcggacattcgcccgtgagaaggcaccagaccacctatttaagcgtt			

Docket # 66153-5587 51/85 BciVI | BsiEI 51/85 EaeI BanII EagI Bsp1286I Ecil BsiEI GdiII  $\verb"gggtatcatggcggacgaccggggttcgagcccgtatccggccgtccgccgtgatccat"$ 11821 cccatagtaccgcctgctggccccaagctcggggcataggccggcaggcggcactaggta **Aat TT BstEII** gcggttaccgcccgcgtgtcgaacccaggtgtgcgacgtcagacaacgggggagtgctcc 11940 11881 cgccaatggcgggcgcacagcttgggtccacacgctgcagtctgttgccccctcacgagg BSSHII HaeI MscI EaeI EaeI |GdiII NheI ttttggcttccttccaggcgcggcggctgctgcgctagctttttttggccactggccgcgc 12000 11941 aaaaccgaaggaaggtccgcgccgccgacgacgcgatcgaaaaaaccggtgaccggcgcg 12060 12001 BsiEI EaeI EagI GdiĪI Eco0109I BsrFI Psp5II SanDI AloI RsrII | StyI 12061 **BSaWI** ApoI BspEI ctgcggcgaacgggggtttgcctccccgtcatgcaagaccccgcttgcaaattcctccgg 12121 gacgccgcttgcccccaaacggagggcagtacgttctggggcgaacgtttaaggaggcc **BstAPI** BsaWI BanII BseRI NsiII Bsp1286I aaacagggacgagccccttttttgcttttcccagatgcatccggtgctgcggcagatgcg tttgtccctgctcggggaaaaacgaaaagggtctacgtaggccacgacgccgtctacgc Bsp1286I BseRII BmgI|| BseSI BbvCI BanIIII NspI 1111 Bpu10I MspA1I MspA1I iш ccccctcctcagcagcggcaagagcaagagcagcggcagacatgcagggcaccctcccc 12241 ggggggaggagtcgtcgccgttctcgttctcgtcgccgtctgtacgtcccgtgggagggg HincII SacII MspA1I1 BstDSI ||  ${\tt tcctcctaccgcgtcaggagggggacatccgcggttgacgcggcagcagatggtgatta}$ 12301 aggaggatggcgcagtcctccccgctgtaggcgccaactgcgccgtcgtctaccactaat ApaI BanII Bsp12861 BmqI BseSI Figure 28R HaeII **BsaHI** NarI BanI| SacII BseRI

Eco01091

BspGI

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

MspA11||

BstDSI ||||

Inventor(s): Appln. No.

Title: Inhibiting Apoptosis Adenovirus RID Protein
Inventor(s): William S.M. Wold
Appln. No. 09/111,911
Docket # 66153-5587
52 / 85

```
1 1111
                                                                      52/85
      \verb|cgaacccccgcggcccggcccggcactacctggacttggaggagggcgagggcctggc|\\
12361
                                                          -+ 12420
      gcttgggggcgcgggccgggccgtgatggacctgaacctcctcccggtcccggaccg
                          BanI
                       BsrBI | StyI
                                       MspA1I
                                                  AflIII
             HaeII Bpu10I
                           | |KpnI|
                                                    MluI
                                       PvuII
      gcggctaggagcgccctctcctgagcggtacccaagggtgcagctgaagcgtgatacgcg
12421
      cgccgatcctcgcgggagaggactcgccatgggttcccacgtcgacttcgcactatgcgc
                SacII
              MspA1I!
            BstDSI ||
         BsaAI
                                                 BanII
      SunI
                                               Bsp1286I
    Eco57II
                       AlwNI
                                                 AvaI|
      \verb|tgaggcgtacgtgccgcggcagaacctgtttcgcgaccgcgagggagaggagcccgagga|
      actccgcatgcacggcgccgtcttggacaaagcgctggcgctccctctcctcgggctcct
     Hin4I
             AloI
  BseRI | BseRI | AceIII
      \tt gatgcgggatcgaaagttccacgcagggcgcgagctgcggcatggcctgaatcgcgagcg
      ctacgccctagctttcaaggtgcgtcccgcgctcgacgccgtaccggacttagcgctcgc
                      Bsp1286I
                                                 BssHII
                        BseRI|
                                                BssHII
      12601
      EaeI
         EagI
        Gdill
    BsaAI
     PmlI
                   BstEII
       | NotI
               | SexAI
      {\tt acacgtggcggccgacctggtaaccgcatacgagcagacggtgaaccaggagattaa}
12661
      tgtgcaccgccggctggaccattggcgtatgctcgtctgccacttggtcctctaatt
                       BsaAI
                        PmlI
                                     BssHII
      ctttcaaaaaagctttaacaaccacgtgcgtacgcttgtggcgcgcgaggaggtggctat
      gaaagttttttcgaaattgttggtgcacgcatgcgaacaccgcgcgctcctccaccgata
     RleAI
  BseRI |
                           BssHII
      {\tt aggactgatgcatctgtgggactttgtaagcgcgctggagcaaaacccaaatagcaagcc}
12781
      tcctgactacgtagacaccctgaaacattcgcgcgacctcgttttgggtttatcgttcgg
           MSDA1 T
                                               BsmI
 BsrBI
            PvuII
                                            BsgI
      gctcatggcgcagctgttccttatagtgcagcacagcagggacaacgaggcattcaggga
12841
      cgagtaccgcgtcgacaaggaatatcacgtcgtgtcgtccctgttgctccgtaagtccct
                      BanII
                    Bsp1286I
                                                      SfcI
                                                 BsaBI
                       AvaIl
                              MspA1I
                         11
      Bce83I
                                                              Figure 28S
                                             Eaell
    PstI
           MslI
                           SmlI
                                 BsgI
                                            Gdilli
      gcagagcatagtggtgcaggagcgcagcttgagcctggctgacaaggtggccgccatcaa
      cgtctcgtatcaccacgtcctcgcgtcgaactcggaccgactgttccaccggcggtagtt
```

```
Inhibiting Apoptosis Adenovirus RID Protein
                  Title:
                                William S.M. Wold
                  Inventor(s):
                                09/111,911
                  Appln. No.
                                66153-5587
                  Docket #
                                           53 / 85
                                                                               53/85
        Bpull02I |
      \verb"ctattccatgcttagcctgggcaagttttacgcccgcaagatataccataccccttacgt"
13021
      gataaggtacgaatcggacccgttcaaaatgcgggcgttctatatggtatggggaatgca
                                           FspI
                                           MSIT
                                                   HaeII
                                          Nspll
       tcccatagacaaggaggtaaagatcgaggggttctacatgcgcatggcgctgaaggtgct
                                                                   13140
13081
       agggtatctgttcctccatttctagctccccaagatgtacgcgtaccgcgacttccacga
                         Bce83I
      SmlI Eco57I
       taccttgagcgacgacctgggcgtttatcgcaacgagcgcatccacaaggccgtgagcgt
13141
       atggaactcgctgctggacccgcaaatagcgttgctcgcgtaggtgttccggcactcgca
                                                      Bsp1286I
                   BanII
                                                        BmgI
                 BsiHKAI
                                                       BSeSI
                Bsp1286I
                                                   Eco010911
                    SacI
                                                  Eco0109111
                 AceIIII
    BsrFI
                                            BstAPI
               Bpull02Ii
                          BsiEI
   NgoAIV
       gagecggeggegegagetcagegacegegagetgatgcacageetgcaaagggeeetgge
                      -11
 13201
       ctcggccgccgcgctcgagtcgctggcgctcgactacgtgtcggacgtttcccgggaccg
                                                     HaeII
                                             Bsp24I
                             Hin4I
        tggcacgggcagcggcgatagagaggccgagtcctactttgacgcgggcgctgacctgcg
 13261
        accgtgcccgtcgccgctatctctcccggctcaggatgaaactgcgcccgcgactggacgc
         ApaI
        BanII
      Bsp1286I
       Bsp24I|
                                       Bsp24I
        BmgI|
                                  Bsp24I
       BseSIII
                                 MspA1I|
  Eco01091111
                                                              BanI
                             BglI PvuIII
     BspMI||||
                 Bsp24I
                                      11
        ctgggccccaagccgacgcgcctggaggcagctgggccggacctgggctggcggtggc
        gacccggggttcggctgcgcgggacctccgtcgacccggcctggacccgaccgccaccg
        BSSHII
      Bsp24I |
BssHII |
        {\tt acccgcgcgcgcgcgcgcgcgcgcgcgaggaatatgacgaggacgatgagtacga}
        tgggcgcgcgcgaccgttgcagccgccgcacctccttatactgctcctgctactcatgct
                    Scal
                                        BclI
                   TatI |
        gccagaggacggcgagtactaagcggtgatgtttctgatcagatgatgcaagacgcaacg
  13441
         cggtctcctgccgctcatgattcgccactacaaagactagtctactacgttctgcgttgc
                              PstI
                         HaeII
                                                     BstDSI
                          SfcI
         gacccggcggtgcggcggctgcagagccagccgtccggccttaactccacggacgac
         ctgggccgccacgccgccgcgacgtctcggtcggcaggccggaattgaggtgcctgctg
         HaeII
      BsaHI
                                                     AflIII
      NarT
                                                       MluI
                                        BssHII
      BanIl
         tggcgccaggtcatggaccgcatcatgtcgctgactgcgcgcaatcctgacgcgttccgg
         accgcggtccagtacctggcgtagtacagcgactgacgcgcgttaggactgcgcaaggcc
                                                                      Figure 28T
                         BsaXI
                                                         RESHII
                    BsrFI
                                                       BssHII |
                 HaeI
```

```
09/111,911
                Appln. No.
                              66153-5587
                Docket #
                                        54 / 85
      54/85
                                          EaeI
                             BsiEI
                                         GdiII
          BssSI
      aaccccacgcacgagaaggtgctggcgatcgtaaacgcgctggccgaaaacagggccatc
13681
      ttggggtgcgtgctcttccacgaccgctagcatttgcgcgaccggcttttgtcccggtag
                        Pf11108I
             BsrFI
            NgoAIV
       \verb"cggcccgacgacgcctggtctacgacgcgctgcttcagcgcgtggctcgttacaac"
       gccgggctgctccggccggaccagatgctgcgcgacgaagtcgcgcaccgagcaatgttg
                           BsrFI
                         BspGI | BsgI
  MspA1I
       agcggcaacgtgcagaccaacctggaccggctggtgggggatgtgcgcgaggccgtggcg
       tcgccgttgcacgtctggttggacctggccgaccaccccctacacgcgctccggcaccgc
                                      BstDSI
                                        NcoI
                                        StyI
                                    Bsp1286I
           BssHII
         BssHII
       {\tt cagcgtgagcgcgcagcagcagcagcagctccatggttgcactaaacgccttc}
        gtcgcactcgcgcgtcgtcgtcccgttggacccgaggtaccaacgtgatttgcggaag
                              SacII
                            MspA1I|
                          BstDSI ||
      TatI
        \verb"ctgagtacacageccgccaacgtgccgcggggacaggaggactacaccaactttgtgagc
        gactcatgtgtcgggcggttgcacggcgccctgtcctcctgatgtggttgaaacactcg
       BtsI
        ,
gcactgcggctaatggtgactgagacaccgcaaagtgaggtgtaccagtctgggccagac
        cgtgacgccgattaccactgactctgtggcgtttcactccacatggtcagacccggtctg
                               SfcI
                             HaeI |
StuI |PstI
                                            Bpu10I
                      AccI
                                ı
        tattttttccagaccagtagacaaggcctgcagaccgtaaacctgagccaggctttcaaa
        ataaaaaaggtctggtcatctgttccggacgtctggcatttggactcggtccgaaagttt
                                                   Tth111I
                                                    BsiEI
                                 BanII
                                             BsiEI RleAI ||
              AlwNI
                              Bsp1286I
      RleAI
         aacttgcaggggctgtgggggtgcgggctcccacaggcgaccgcgcgaccgtgtctagc
         ttgaacgtccccgacacccccacgcccgagggtgtccgctggcgctggcacagatcg
          BsaHI
         ttgctgacgcccaactcgcgcctgttgctgctgctaatagcgcccttcacggacagtggc
         aacgactgcgggttgagcgcggacaacgacgacgattatcgcgggaagtgcctgtcaccg
                                                                    Figure 28U
                        AvrII
              SmaI
                                                        HaeI
            AvaI |
         agcgtgtcccgggacacatacctaggtcacttgctgacactgtaccgcgaggccataggt
  14221
         tcgcacagggccctgtgtatggatccagtgaacgactgtgacatggcgctccggtatcca
              NspI
         caggcgcatgtggacgagcatactttccaggagattacaagtgtcagccgcgcgctgggg
   14281
         gtccgcgtacacctgctcgtatgaaaggtcctctaatgttcacagtcggcgcgcgacccc
                                                     BsrFI
```

BpmI BspMI

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

Title:

```
09/111,911
              Appln. No.
                           66153-5587
              Docket #
                                    55 / 85
                                                                        55/85
      caggaggacacgggcagcctggaggcaaccctaaactacctgctgaccaaccggcggcag
14341
      gtcctcctgtgcccgtcggacctccgttgggatttgatggacgactggttggccgccgtc
                                                  IBsaAI
  BstYI
      aagatcccctcgttgcacagtttaaacagcgaggaggagcgcattttgcgctacgtgcag
14401
      ttctaggggagcaacgtgtcaaatttgtcgctcctcctcgcgtaaaacgcgatgcacgtc
                                                   BspGI
                                                 HaeII |
                                              XcmI
                 BsgI
      cagagcgtgagccttaacctgatgcgcgacggggtaacgcccagcgtggcgctggacatg
14461
      gtctcgcactcggaattggactacgcgctgcccattgcgggtcgcaccgcgacctgtac
                                         BsiEI
                                       EaeI
                                       EagI
                                      Gdill
                           NspI
                                    BsrFI |
   BssHII
      accgcgcgcaacatggaaccgggcatgtatgcctcaaaccggccgtttatcaaccgccta
       tggcgcgcgttgtaccttggcccgtacatacggagtttggccggcaaatagttggcggat
                       BsiEI
                     EaeI
                     EagI
                    Gdill
                                  AvaI
                     NotI
       atggactacttgcatcgcgcggccgccgtgaaccccgagtatttcaccaatgccatcttg
14581
       tacctgatgaacgtagcgcgccggcggcacttggggctcataaagtggttacggtagaac
                                                Bsp1286I
                                                   Avall
                                                  BmgI||
                                                 BseSI
                                               BanI |||
       aacccgcactggctaccgcccctggtttctacaccgggggattcgaggtgcccgagggt
 14641
       ttgggcgtgaccgatggcggggaccaaagatgtggccccctaagctccacgggctccca
       aacgatggattcctctgggacgacatagacgacagcgtgttttccccgcaaccgcagacc
                                                           --+ 14760
 14701
       ttgctacctaaggagaccctgctgtatctgctgtcgcacaaaaggggcgttggcgtctgg
                                               HindIII
       ctgctagagttgcaacagcgcgagcaggcagaggcggcgctgcgaaaggaaagcttccgc
                                                               14820
 14761
       SacII
                                     MspA1I!
                                   BstDSI ||
                   Tth111II
                             HaeII
     HaeI
       {\tt aggccaagcagcttgtccgatctaggcgctgcggccccgcggtcagatgctagtagccca}
       tccggttcgtcgaacaggctagatccgcgacgccggggcgccagtctacgatcatcgggt
                                                       BglI
     HindIII
                Hin4I
                        BsaI
       14881
       aaaggttcgaactatcccagagaatggtcgtgagcgtggtgggcggggcgggacgacccg
                                                                 Figure 28V
                                                         BSDMI
                             SfcT
                 BseRI
        gaggaggagtacctaaacaactcgctgctgcagccgcagcgcgaaaaaaacctgcctccg
 14941
        SunI |
        gcatttcccaacaacgggatagagacctagtggacaagatgagtagatggaagacgtac
 15001
        cgtaaagggttgttgccctatctctcggatcacctgttctactcatctaccttctgcatg
```

William S.M. Wold

Title:

```
Appln. No.
                               09/111,911
                               66153-5587
                Docket #
                                         56 / 85
                                                                                  56/85
         BsiHKAI
                                                              BsiEI
                              Bsp24I
        Bsp1286I
      gcgcaggagcacagggacgtgccaggcccgcccgcccacccgtcgtcaaaggcacgac
      cgcgtcctcgtgtccctgcacggtccgggcgcgggcgggtgggcagcagtttccgtgctg
       RleAI
     MspAlI i
                                                    DrdI
 Bsp24I
                              Hin4I
      cgtcagcggggtctggtgtgggaggacgatgactcggcagacgacagcagcgtcctggat
15121
      gcagtcgccccagaccacaccctcctgctactgagccgtctgctgtcgtcgcaggaccta
                                                              DraI
       ttgggagggagtggcaacccgtttgcgcaccttcgccccaggctggggagaatgtttaa
                                                                     15240
15181
       aaccctccctcaccgttgggcaaacgcgtggaagcggggtccgacccctcttacaaaatt
                                            BstXI
                                          BstDSI
                                            NcoII
                                            Styll
                                      Styl Haell
       aaaaaaaaaagcatgatgcaaaataaaaaactcaccaaggccatggcaccgagcgttggt
       ttttttttttcgtactacgttttattttttgagtggttccggtaccgtggctcgcaacca
                                                 Psp5II
                                               Sse8647I
                          BssHII
                                             BseRI
       tttcttgtattccccttagtatgcggcgcggcggtgtatgaggaaggtcctcctccct
                                                          ----+ 15360
15301
       aaagaacataaggggaatcatacgccgcgcgccgctacatactccttccaggaggaggga
                            HaeII
                         BsaHI
                          NarI
                                            HaeII
 Pf11108I
                         BanI
                            -11
       cctacgagagtgtggtgagcgggggcgccagtggcggcggcggttctcccttcgatg
15361
       ggatgctctcacaccactcgcgccgcggtcaccgccgccgcgacccaagagggaagctac
                                  BanI
                                SacII
                             MspA1I||
                            BstDSI |||KpnI
                                             BspMI
         BSpGI
       \verb|ctccctggacccgccgtttgtgcctccgcggtacctgcggcctaccggggggagaaaca|
       gaggggacctgggcggcaaacacggaggcgccatggacgccggatggccccccttttgt
                                             MslI SexAI
                       BanI
       \tt gcatccgttactctgagttggcacccctattcgacaccacccgtgtgtacctggtggaca
15481
       cgtaggcaatgagactcaaccgtggggataagctgtggtgggcacacatggaccacctgt
       HincII
    AhdI
                                                               PshAI
 HaeIV
                 HaeIV
                                                            BstDSI |
 Hin4I
                 Hin4I
      11
       acaagtcaacggatgtggcatccctgaactaccagaacgaccacagcaactttctgacca
       tgttcagttgcctacaccgtagggacttgatggtcttgctggtgtcgttgaaagactggt
                                                     Tth111II
                                                                     Figure 28W
                                                     HaeIV
                               Sma T
                       SfcI AvaI |
                                                     Hin4I |
       cggtcattcaaaacaatgactacagcccgggggggggcaagcacacagaccatcaatcttg
                                                                     15660
       gccagtaagttttgttactgatgtcgggccccctccgttcgtgtgtctggtagttagaac
          BsiEI
       AhdI
      BsiEI
     BsaWI
     BarFII
```

William S.M. Wold

Title: Inventor(s):

HaeIV| Hin4I|

Docket # 66153-5587 57/85 NspI 57 / 85 acgaccggtcgcactggggcggcgacctgaaaaccatcctgcataccaacatgccaaatg tgctggccagcgtgaccccgccgctggacttttggtaggacgtatggttgtacggtttac tgaacgagttcatgtttaccaataagtttaaggcgcgggtgatggtgtcgcgcttgccta acttgctcaagtacaaatggttattcaaattccgcgcccactaccacagcgcgaacggat ctaaggacaatcaggtggagctgaaatacgagtgggtggagttcacgctgcccgagggca gattcctgttagtccacctcgactttatgctcacccacctcaagtgcgacgggctcccgt BsiEI BsiHKAI PvuI Bsp1286I BsaI actactccgagaccatgaccatagaccttatgaacaacgcgatcgtggagcactacttga 15841 tgatgaggctctggtactggtatctggaatacttgttgcgctagcacctcgtgatgaact aagtgggcagacagaacggggttctggaaagcgacatcggggtaaagtttgacacccgca 15901 ttcacccgtctgtcttgccccaagacctttcgctgtagccccatttcaaactgtgggcgt BmrI acttcagactggggtttgaccccgtcactggtcttgtcatgcctggggtatatacaaacg 15961 tgaagtctgaccccaaactggggcagtgaccagaacagtacggaccccatatatgtttgc aagccttccatccagacatcattttgctgccaggatgcggggtggacttcacccacagcc ---+ 16080 16021 ttcggaaggtaggtctgtagtaaaacgacggtcctacgccccacctgaagtgggtgtcgg TaqII Bpu10I | gcctgagcaacttgttgggcatccgcaagcggcaacccttccaggagggctttaggatca --+----cggactcgttgaacaacccgtaggcgttcgccgttgggaaggtcctcccgaaatcctagt BpmI Pfl1108I MmeT cctacgatgatctggagggtggtaacattcccgcactgttggatgtggacgcctaccagg ggatgctactagacctcccaccattgtaagggcgtgacaacctacacctgcggatggtcc 16260 gctcgaactttctactgtggcttgtcccgccccaccgcgtccgccgtcgttgtcgtcac SacII MspA1I| EarI MspA1I MmeI BstDSI || gcagcggcgcggaagaactccaacgcggcagccgcggcaatgcagccggtggaggaca cgtcgccgcgccttctcttgaggttgcgccgtcggcgccgttacgtcggccacctcctgt BbvCI BbvCI I Bpu10I Bpu10I BssHII BcgI tgaacgatcatgccattcgcggcgacacctttgccacacgggctgaggagaagcgcgctg 16321 acttgctagtacggtaagcgccgctgtggaaacggtgtgcccgactcctcttcgcgcgac BsiEI Figure 28X EaeI EagI Gdill | AvaI MspA1I| aggccgaagcagcggccgaagctgccgccccgctgcgcaacccgaggtcgagaagcctc tccggcttcgtcgccggcttcgacggcggggggcgacgcgttgggctccagctcttcggag

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

BsaWI BsrFI Inventor(s):

Appln. No. 09/111,911 Docket # 66153-5587 58 / 85 58/85 PinAI BclI ECONI agaagaaaccggtgatcaaacccctgacagaggacagcaagaaacgcagttacaacctaa 16441 tcttctttggccactagtttggggactgtctcctgtcgttctttgcgtcaatgttggatt BanI TaqII | MspA1I || PvuII II HgiEII| ||KpnI BsrDI BmrI taagcaatgacagcaccttcacccagtaccgcagctggtaccttgcatacaactacggcg attcgttactgtcgtggaagtgggtcatggcgtcgaccatggaacgtatgttgatgccgc BspMI BspMI BsaWI BsrBI  ${\tt accctcagaccggaatccgctcatggaccctgctttgcactcctgacgtaacctgcggct}$ tgggagtctggccttaggcgagtacctgggacgaaacgtgaggactgcattggacgccga cggagcaggtctactggtcgttgccagacatgatgcaagaccccgtgaccttccgctcca 16621 gcctcgtccagatgaccagcaacggtctgtactacgttctggggcactggaaggcgaggt **BsiHKAI** HaeIT BsaHI NarI AceIII BanIi 11 cgcgccagatcagcaactttccggtggtgggcgccgagctgttgcccgtgcactccaaga gcgcggtctagtcgttgaaaggccaccacccgcggctcgacaacgggcacgtgaggttct DrdI gcttctacaacgaccaggccgtctactcccaactcatccgccagtttacctctctgaccc cgaagatgttgctggtccggcagatgagggttgagtaggcggtcaaatggagagactggg AscI **BsaAI** BssHII PmlI Afl TIT! AvaI DrdII PflMI AclI BcgI |FspI XmnI ccaccgtcagtgaaaacgttcctgctctcacagatcacgggacgctaccgctgcgcaaca ggtggcagtcacttttgcaaggacgagagtgtctagtgccctgcgatggcgacgcgttgt BseRI BcgI BsaHI BsaHI AarI gcatcggaggagtccagcgagtgaccattactgacgccagacgccgcacctgcccctacg cgtagcctcctcaggtcgctcactggtaatgactgcggtctgcggcgtggacggggatgc  $\verb|tttacaaggccctgggcatagtctcgccgcgcgtcctatcgagccgcactttttgagcaa|$  ${\tt aaatgttccgggacccgtatcagagcggcgcgcaggatagctcggcgtgaaaaactcgtt}$ NspI Tth111II

 $\tt gcatgtccatccttatatcgcccagcaataacacaggctggggcctgcgcttcccaagca$ 

cgtacaggtaggaatatagcgggtcgttattgtgtccgaccccggacgcgaagggttcgt

agatgtttggcggggccaagaagcgctccgaccaacacccagtgcgcgtgcgcgggcact

tctacaaaccgccccggttcttcgcgaggctggttgtggggtcacgcgcacgcgcccgtga

DraIII

BsbI BmrIi

HaeII

Eco47III |

Bsp1286I BmgI |

BseSI

MmeI

TaqII

Figure 28Y

17041

17101

Tth111II

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

Title:

```
Appln. No.
                          09/111,911
                          66153-5587
              Docket #
                                   59 / 85
                                                                    59485
                             BsiEI
                           EaeT
                           EagI
                                                    BsaHI
                                   BmrI
                           NotI
             BSSHII
  BssHII
     accgcgcgccctggggcgcgcacaaacgcggccgcactgggcgcaccaccgtcgatgacg
17161
     tggcgcgcgggaccccgcgcgtgtttgcgccggcgtgacccgcgtggtggcagctactgc
                     BSSHII
                              BseRI
      BcgI |
      ccatcgacgcggtggtggaggaggcgcgcaactacacgcccacgccgccaccagtgtcca
      ggtagctgcgccaccacctcctccgcgcgttgatgtgcgggtgcggcggttggtcacaggt
17221
                                                BsmBI
                   BStDST
                                Bsp1286I HaeII
                                               EarI |
                   XcmI |
      {\tt cagtggacgcggccattcagaccgtggtgcgcggagcccggcgctatgctaaaatgaaga}
      gtcacctgcgccggtaagtctggcaccacgcgcctcgggccgcgatacgattttacttct
                                     BglI BtsI
      gacggcggaggcgcgtagcacgtcgccaccgccgacccggcactgccgaccaacgcg
17341
      ctgccgcctccgcgcatcgtgcagcggtggcggctgggccgtgacggcgggttgcgc
                                   BsiEI
                                 EaeI
                                 EagI
                                           EaeI
                                GdiII
                                                  Sfil BsrBI
                                          GdiII
                               BsrFI |
                                  1 1
      cggcggcggccctgcttaaccgcgcacgtcgcaccggccgacgggcggccatgcgggccg
      17401
                                                   EaeI
               SacII
                                                   EagI
             MspA1I|
                             Bsp1286I
                                                  GdiII
            BstDSI ||
                                                   NotI
                              BmgI |
           EaeI
                                                  BsrBI
                              BseSI
                                        BspGI
          GdiII
       ctcgaaggctggccgcgggtattgtcactgtgccccccaggtccaggcgacgagcggccg
 17461
       gagetteegaeeggegeeeataaeagtgaeaeggggggteeaggteegetgetegeegge
              EaeI
             GdiII
                                 AhdI
             SacII
                                            AflIII
                               HaeIVI
           MspA1I|
                               Hin4I
                                            TaqII
          BstDSI ||
       ccgcagcagccgcgccattagtgctatgactcagggtcgcaggggcaacgtgtattggg
 17521
       ggcgtcgtcggcgccggtaatcacgatactgagtcccagcgtccccgttgcacataaccc
                           Bsp1286I
                             BmgI |
                            BseSI
                                  FspI
       tgcgcgactcggttagcggcctgcgcgtgcccgtgcgcacccgccccccgcgcaactaga
       17581
                                                 BssHII
                                              BciVI
                                         MspA1I
       17641
        BglII
                          Earl
                         BpmI |
        acgaagctatgtccaagcgcaaaatcaaagaagatgctccaggtcatcgcgccggaga
  17701
        tgcttcgatacaggttcgcgttttagtttcttctctacgaggtccagtagcgcggcctct
                                                                 Figure 28Z
                  SapI
        tctatggcccccgaagaaggaagagcaggattacaagccccgaaagctaaagcgggtca
```

William S.M. Wold

Title:

```
66153-5587
                Docket #
                                       60 / 85
                                                                           60/85
      agataccggggggcttcttccttctcgtcctaatgttcggggctttcgatttcgcccagt
      aaaagaaaagaaagatgatgatgatgaacttgacgacgaggtggaactgctgcacgcta
17821
      ttttctttttcttctactactacttgaactgctgctccaccttgacgacgtgcgat
                                 AflIII
                                   MluI
                                HincII |
                                 ACCII
                                                            BanI
                                          AflIII
                                SalIII
                                   111
      ccgcgcccaggcgacgggtacagtggaaaggtcgacgcgtaaaacgtgttttgcgacccg
                                                                17940
17881
      ggcgcgggtccgctgcccatgtcacctttccagctgcgcattttgcacaaaacgctgggc
                                HaeII
                           Eco47III
      gcaccaccgtagtctttacgcccggtgagcgctccacccgcacctacaagcgcgtgtatg
                                                                 18000
17941
      cgtggtggcatcagaaatgcgggccactcgcgaggtgggcgtggatgttcgcgcacatac
                 Eco0109I
                                                AvaI
                   Psp5II
                                               Bce83I
                               BspMI
                 Sse8647I
                                   | HaeI
                                               HaeIII
                            SmlI
             Tth111II
                                                  11
       atgaggtgtacggcgacgaggacctgcttgagcaggccaacgagcgcctcggggagtttg
18001
       tactccacatgccgctgctcctggacgaactcgtccggttgctcgcggagcccctcaaac
                                         BspGI
                                                         BsbI
                           NspI
                                     MspA1I
       cctacggaaagcggcataaggacatgctggcgttgccgctggacgagggcaacccaacac
                                                                 18120
18061
       ggatgcctttcgccgtattcctgtacgaccgcaacggcgacctgctcccgttgggttgtg
                                AlWNI
                               BSTAPI
                       BtsI
                              AarI
                           BstAPI
                       SfcI
                          |PstI
       ctagcctaaagcccgtaacactgcagcaggtgctgcccgcgcttgcaccgtccgaagaaa
       gatcggatttcgggcattgtgacgtcgtccacgacgggcgcgaacgtggcaggcttcttt
                                                      BanI
                                                  TaqII
                                              MspA1I
                                               PvuII
                                                         |KpnI
                                  BanI
        18240
 18181
        BanII
                                                       Bsp1286I
      HaeII AlwNI
                                                          Avali
     BsgI | PflMI
                                     BstDSI
        agcgccagcgactggaagatgtcttggaaaaaatgaccgtggaacctgggctggagcccg
                                                                 18300
 18241
        tcgcggtcgctgaccttctacagaaccttttttactggcaccttggacccgacctcgggc
                                  Tch111II
                                  HaeII
                               BsaHI
               BspMI
                                NarI
               BpmI |
                               BanI
               EaeI
                                                   BstDSI
                            AarI ||
                                         IBmrI
                                  11
        aggtccgcgtgcggccaatcaagcaggtggcgccgggactgggcgtgcagaccgtggacg
        tccaggcgcacgccggttagttcgtccaccgcggccctgacccgcacgtctggcacctgc
                                                 XcmI
         BsgI
        ttcagatacccactaccagtagcaccagtattgccaccgccacagagggcatggagacac
  18361
        aagtetatgggtgatggteategtggteataaeggtggeggtgteteeegtaeetetgtg
                                                                     Figure 28AA
                                                             BsqI
                                                          BsiEI
                                                         EaeI
                                      SacII
                                                         EagI
                      MspA1I
                                    MspA1I|
                                                        Gdill
                                   BstDSI ||
```

William S.M. Wold

09/111,911

Title:

Inventor(s):

Appln. No.

BbvCI

```
William S.M. Wold
              Inventor(s):
                           09/111,911
              Appln. No.
              Docket #
                            66153-5587
                                      61 / 85
                                                                              61/85
                                                   BsiEI Notl | |
                                       1 11
  DrdI
      aaacgtccccggttgcctcagcggtggcggatgccgcggtgcaggcggtcgctgcggccg
      tttgcaggggccaacggagtcgccaccgcctacggcgccacgtccgccagcgacgccggc
                                 BstDSI
      \verb|cgtccaagacctctacggaggtgcaaacggacccgtggatgtttcgcgtttcagcccccc|\\
      gcaggttctggagatgcctccacgtttgcctgggcacctacaaagcgcaaagtcgggggg
                                HaeII
    HaeII
                             BsaHI
 BsaHI
  NarI
                              NarI
                                    BssHII
  BanI
                             BanI
      \tt ggcgcccgcggttcgaggaagtacggcgccgccagcgcgctactgcccgaatatgccc
      ccgcgggcgcgccaagctccttcatgccgcggcggtcgcgcgatgacgggcttatacggg
          BsrDI
      tacatccttccattgcgcctaccccggctatcgtggctacacctaccgccccagaagac
      atgtaggaaggtaacgcggatgggggccgatagcaccgatgtggatggcggggtcttctg
              BsaHI DrdII
   BbsI
      gagcaactacccgacgccgaaccaccactggaacccgccgccgccgtcgccgtcgccagc
      ctcgttgatgggctgcggcttggtggtgaccttgggcggcggcggcagcggcagcggtcg
                                       NruI
                          FspI
                                                 Psp5II
   BcqI
                                      BcgIl
      ccgtgctggccccgatttccgtgcgcagggtggctcgcgaaggaggcaggaccctggtgc
      ggcacgaccggggctaaaggcacgcgtcccaccgagcgcttcctccgtcctgggaccacg
        BSSHII
      {\tt tgccaacagcgcgctaccaccccagcatcgtttaaaagccggtctttgtggttcttgcag}
      acggttgtcgcgcgatggtgggtcgtagcaaattttcggccagaaacaccaagaacgtc
                      BspMI
                                  BanI
      atatggcctcactgccgcctccgtttcccggtgccgggattccgaggaagaatgcacc
       tataccgggagtggacggcggaggcaaagggccacggccctaaggctccttcttacgtgg
                    BstDSI
                     FseIi
                   EaeI l
                  GdiII
                BsrFI |
               NgoAIV
                                                         BsrFI
              EaeI |
GdiII |
                                            NspI
                                                    FspI SgrAI
                                            SphI
                                  BglI
                     1 11
       gtaggaggggcatggccggccacggcctgacgggcggcatgcgtcgtgcgcaccaccggc
18901
       catecteccegtaceggecggtgccggactgcccgccgtacgcagcacgcgtggtggccg
                            NspI
       ggcggcgcgcgtcgcaccgtcgcatgcgcggcggtatcctgcccctccttattccactga
                                                                    19020
       \verb|ccgccgcgcgcgcgcgcgcgccataggacggggaggaataaggtgact|
                        Bsp1286I
                         BmgI
                        BseSI
                    HaeII
                                                                     Figure 28BB
       SacII
                 BsaHI
                  NarI
     MspA1II
                                      BstDSI HaeI BglI
   BstDSI ||
                 BanIl
       tcgccgcggcgattggcgcgtgcccggaattgcatccgtggccttgcaggcgcagagac
       agcggcgccgctaaccgcggcacgggccttaacgtaggcaccggaacgtccgcgtctctg
                         NspI
       actgattaaaaacaagttgcatgtggaaaaatcaaaataaaagtctggactctcacgct
                                                                    19140
19081
       tgactaatttttgttcaacgtacacctttttagttttatttttcagacctgagagtgcga
```

Title:

Docket # 66153-5587 62 / 85 62/85 BsmBI BbsI  $\verb|cgcttggtcctgtaactattttgtagaatggaagacatcaactttgcgtctctggccccg|$ 19141 gcgaaccaggacattgataaaacatcttaccttctgtagttgaaacgcagagaccggggc BanI Eco57I ECORV  $\verb|cgacacggctcgcccgttcatgggaaactggcaagatatcggcaccagcaatatgagcaatatgagcaccagcaatatatgagcaatatgagcaccagcaatatgagcaatatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatatgagcaatat$ 19201 gctgtgccgagcgcgggcaagtaccctttgaccgttctatagccgtggtcgttatactcg BsaHI Bsp1286I |MspA1I NarI | PvuII ApoI BsrBI BanIl ggtggcgccttcagctggggctcgctgtggagcggcattaaaaatttcggttccaccgtt 19261 ccaccgcggaagtcgaccccgagcgacacctcgccgtaatttttaaagccaaggtggcaa **BbvCI** Bpu10I HaeI HaeI AlwNI StuI aaqaactatggcagcaaggcctggaacagcagcacaggccagatgctgagggataagttg 19321  $\verb|ttcttgataccgtcgttccggaccttgtcgtcgtgtccggtctacgactccctattcaac|$ HaeI MmeIl HaeI ΑpoΙ aaagagcaaaatttccaacaaaaggtggtagatggcctggcctctggcattagcggggtg tttctcgttttaaaggttgttttccaccatctaccggaccggagaccgtaatcgccccac HaeI MscI BglI BtsI EaeI | HindIII gtggacctggccaaccaggcagtgcaaaataagattaacagtaagcttgatccccgccct 19441 cacctggaccggttggtccgtcacgttttattctaattgtcattcgaactaggggcggga BsiEI **BstDSI** BseRI| Hin4II EagI || Tth111111 GdiII || BsaXIIII Hin4I|| BsrFI | ||  $\mathbf{H}$ cccgtagaggagcctccaccggccgtggagacagtgtctccagaggggcgtggcgaaaag 19560 gggcatctcctcggaggtggccggcacctctgtcacagaggtctccccgcaccgcttttc Hin4I SunI 19561 19620 Bsp24I **BstAPI** BstDSI Hael NcoI StuII Bsp24I || StyI BsaWI BseRI | || BplI gaggaggcactaaagcaaggcctgcccaccacccgtcccatcgcgcccatggctaccgga ctcctccgtgatttcgttccggacgggtggtgggcagggtagcgcggggtaccgatggcct BspMI BspGI gtgctgggccagcacacacccgtaacgctggacctgcctcccccgccgacacccagcag 19681 cacgacccggtcgtgtgggcattgcgacctggacggagggggggcggctgtgggtcgtc Figure 28CC aaacctgtgctgccaggcccgaccgccgttgttgtaacccgtcctagccgcgcgtccctg tttggacacgacggtccgggctggcggcaacaacattgggcaggatcggcgcgcagggac RsrII

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title: Inventor(s):

MspA1I |

```
Docket #
                                66153-5587
                                           63/85
                                                                                 63/85
       cgccgcgccaccggtccgcgatcgttgcggcccgtagccagtggcaactggcaaagc
       gcggcggcggtcgccaggcgctagcaacgccgggcatcggtcaccgttgaccgtttcg
       acactgaacagcatcgtgggtctgggggtgcaatccctgaagcgccgacgatgcttctga
19861
       tgtgacttgtcgtagcacccagacccccacgttagggacttcgcggctgctacgaagact
       atagctaacgtgtcgtatgtgtgtcatgtatgcgtccatgtcgccgccagaggagctgct
                                                                      19980
19921
       tatcgattgcacagcatacacagtacatacgcaggtacagcggcggtctcctcgacga
                                                        BtsI
      BseRI
       gagccgccgcgcccgctttccaagatggctaccccttcgatgatgccgcagtggtctt
                                                                      20040
19981
       ctcggcggcgcgcgggcgaaaggttctaccgatggggaagctactacggcgtcaccagaa
                                              AvaI
                                             BanII
                                          Bsp1286I
       NspI AvaI
                        BsaHI
       {\tt acatgcacatctcgggccaggacgcctcggagtacctgagccccgggctggtgcagtttg}
       tgtacgtgtagagcccggtcctgcggagcctcatggactcggggcccgaccacgtcaaac
                                                             NarI
       BsmBI
                                                   BstDSI
                                                            Banli
     Eco57I1
              BsgI
                                                               11
       \verb|cccgcgccaccgagacgtacttcagcctgaataacaagtttagaaaccccacggtggcgc|
       \tt gggcgcggtggctctgcatgaagtcggacttattgttcaaatctttggggtgccaccgcg
                        BsaWI
                        BsrFI
                                                          MslI
           DraIII
                        PinAI
       \verb|ctacgcacgacgtgaccacagaccggtcccagcgtttgacgctgcggttcatccctgtgg|
       gatgcgtgctgcactggtgtctggccagggtcgcaaactgcgacgccaagtagggacacc
                                          TaqII
   BCIVI
                                        RleAI |
       {\tt accgtgaggatactgcgtactcgtacaaggcgcggttcaccctagctgtgggtgataacc}
20221
       tggcactcctatgacgcatgagcatgttccgcgccaagtgggatcgacacccactattgg
                                                          Bsp1286I
                                                            BmaI
                                                           BseSI
                                         SacII
                                                     Eco0109111
                                       MSDA1II
                                                  BspGI
                                     BstDSI ||
          BspGI
                        BsaAI
       gtgtgctggacatggcttccacgtactttgacatccgcggcgtgctggacaggggcccta
20281
        cacacgacctgtaccgaaggtgcatgaaactgtaggcgccgcacgacctgtccccgggat
                                                     Bsp1286I
                                                       BmqI l
                                                      BseŠI
                                               Styl Banl |
                         BtsI
       cttttaagccctactctggcactgcctacaacgccctggctcccaagggtgccccaaatc
20341
        gaaaattcgggatgagaccgtgacggatgttgcgggaccgagggttcccacggggtttag
                                               EarI
        cttqcqaatqqqatqaaqctqctactqctcttqaaataaacctaqaaqaaqaqqacqatq
        gaacgcttaccctacttcgacgatgacgagaactttatttggatcttcttctcctgctac
                                                                        Figure 28DD
                                                                BsaHI
                                                                 NarI
                                                                BanI
                                                  BsaAI
                BbsI
                            Bpu1102I
```

11

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold Inventor(s): 09/111,911 Appln. No. 66153-5587 Docket # 64 / 85 64/85 acaacgaagacgaagtagacgagcaagctgagcagcaaaaaactcacgtatttyyycagg tgttgcttctgcttcatctgctcgttcgactcgtcgttttttgagtgcataaacccgtcc cgccttattctggtataaatattacaaaggagggtattcaaataggtgtcgaaggtcaaa gcggaataagaccatatttataatgtttcctcccataagtttatccacagcttccagttt cacctaaatatgccgataaaacatttcaacctgaacctcaaataggagaatctcagtggt gtggatttatacggctattttgtaaagttggacttggagtttatcctcttagagtcacca MspA1I VspI acgaaactgaaattaatcatgcagctgggagagtccttaaaaagactaccccaatgaaac tgctttgactttaattagtacgtcgaccctctcaggaatttttctgatggggttactttg NdeI catgttacggttcatatgcaaaacccacaaatgaaaatggagggcaaggcattcttgtaa gtacaatgccaagtatacgttttgggtgtttacttttacctcccgttccgtaagaacatt agcaacaaaatggaaagctagaaagtcaagtggaaatgcaatttttctcaactactgagg tcgttgttttacctttcgatctttcagttcacctttacgttaaaaagagttgatgactcc BsrGI TatI BsiEI cgaccgcaggcaatggtgataacttgactcctaaagtggtattgtacagtgaagatgtag gctggcgtccgttaccactattgaactgaggatttcaccataacatgtcacttctacatc HaeI StuI BsrDI Ball gagaactaatgggccaacaatctatgcccaacaggcctaattacattgcttttagggaca ctcttgattacccggttgttagatacgggttgtccggattaatgtaacgaaaatccctgt  ${\tt attttattggtctaatgtattacaacagcacgggtaatatgggtgttctggcgggccaag}$ taaaataaccagattacataatgttgtcgtgcccattatacccacaagaccgcccggttc Tth111II catcgcagttgaatgctgttgtagatttgcaagacagaacacagagctttcataccagc gtagcgtcaacttacgacaacatctaaacgttctgtctttgtgtctcgaaagtatggtcg DrdII HincII SexAI ttttgcttgattccattggtgatagaaccaggtacttttctatgtggaatcaggctgttg aaaacgaactaaggtaaccactatcttggtccatgaaaagatacaccttagtccgacaac

acagctatgatccagatgttagaattattgaaaatcatggaactgaagatgaacttccaa tgtcgatactaggtctacaatcttaataacttttagtaccttgacttctacttgaaggtt

 ${\tt attactgctttccactgggaggtgtgattaatacagagactcttaccaaggtaaaaccta}$ taatgacgaaaggtgaccctccacactaattatgtctctgagaatggttccattttggat

aaacaggtcaggaaaatggatgggaaaaagatgctacagaattttcagataaaaatgaaa tttgtccagtccttttacctaccctttttctacgatgtcttaaaagtctatttttacttt Figure 28EE

HaeII

20641

20701

20941

Eco57I

ECONI

```
Appln. No.
                        09/111,911
            Docket #
                        66153-5587
                                65 / 85
                  BstDSI
                                                               65/85
                    NCOI
                                          PflMI
                                                 ApoI
                    StyI
     taagagttggaaataattttgccatggaaatcaatctaaatgccaacctgtggagaaatt
21361
     attctcaacctttattaaaacggtacctttagttagatttacggttggacacctctttaa
                  HaeII
                                      TatI
                              MmeI
              Eco47III |
    TatI
     tcctgtactccaacatagcgctgtatttgcccgacaagctaaagtacagtccttccaacg
     aggacatgaggttgtatcgcgacataaacgggctgttcgatttcatgtcaggaaggttgc
                            Tth111II
                 MmeI Pfl1108I
                                                  Ava I
    IoqA
      taaaaatttctgataacccaaacacctacgactacatgaacaagcgagtggtggctcccg
21481
     atttttaaagactattgggtttgtggatgctgatgtacttgttcgctcaccaccgagggc
                          BsiHKAI
                                               Tth111I
                     Styl Bsp1286I
      ggttagtggactgctacattaaccttggagcacgctggtcccttgactatatggacaacg
                     21541
      ccaatcacctgacgatgtaattggaacctcgtgcgaccagggaactgatatacctgttgc
                      XcmI
                           HaeI
                    MslI |BsrDI |
 HincII
      tcaacccatttaaccaccaccgcaatgctggcctgcgctaccgctcaatgttgctgggca
21601
      agttgggtaaattggtggtggcgttacgaccggacgcgatggcgagttacaacgacccgt
            Bsp1286I
                          BanI
             Bmc I
     BsrDI
            BseSI |
                        MslI 1
      atggtcgctatgtgcccttccacatccaggtgcctcagaagttctttgccattaaaaacc
      taccagcgatacacgggaaggtgtaggtccacggagtcttcaagaaacggtaatttttgg
                      Pf11108I
                    Eco57I
                                             HincII
                BanII
                                                    DrdII
                                               HpaI
              Bsp1286I
      AvrII
              StyI
           BanII
         BsiHKAI
        Bsp1286I
        PstI
                       Bsu36I HincII
    SfcI
          | SacI |
      \verb|ttctgcagagctccctaggaaatgacctaagggttgacggagccagcattaagtttgata|\\
      aagacgtctcgagggatcctttactggattcccaactgcctcggtcgtaattcaaactat
                        BstDSI
                                                SmlI
                          NCOI
                                    BsbI |
                          StyI
      gcatttgcctttacgccaccttcttccccatggcccacaacaccgcctccacgcttgagg
                                                        21900
 21841
      BsaXI
                                      Hin4II
                                            Ecil
             Bce83I
      ccatgcttagaaacgacaccaacgaccagtcctttaacgactatctctccgccgccaaca
                                                         21960
 21901
      ggtacgaatctttgctgttgcttgctggtcaggaaattgctgatagagaggcggctggttgt
                               Bsp1286I
                                                            Figure 28FF
                                BmqI i
                                                     BmrI
                               BseSI
    NspI
       AflII
```

William S.M. Wold

Title:

MspA1I|

66153-5587 Docket # 66 / 85 BmrI BstDSI || SmlI 66/85 -1-1 gggcggctttccgcggctgggccttcacgcgccttaagactaaggaaaccccatcactgg 22080 22021 cccgccgaaaggcgccgacccggaagtgcgcggaattctgattcctttgggggtagtgacc Pf11108I BanII Bsp1286I Avali 11 22140 22081 HaeI MspA1I EarI |HaeI MscI DrdI | PvuII EaeI | tttacctcaaccacacctttaagaaggtggccattacctttgactcttctgtcagctggc aaatggagttggtgtggaaattcttccaccggtaatggaaactgagaagacagtcgaccg HaeII Eco47III |HincII BsrDI ctggcaatgaccgcctgcttacccccaacgagtttgaaattaagcgctcagttgacgggg 22260 22201 gaccgttactggcggacgaatgggggttgctcaaactttaattcgcgagtcaactgcccc DrdII NheI AclI PflMI agggttacaacgttgcccagtgtaacatgaccaaagactggttcctggtacaaatgctag 22320 22261  ${\tt tcccaatgttgcaacgggtcacattgtactggtttctgaccaaggaccatgtttacgatc}$ NspI Tatīl ctaactacaacattggctaccagggcttctatatcccagagagctacaaggaccgcatgt 22380 22321 gattgatgttgtaaccgatggtcccgaagatatagggtctctcgatgttcctggcgtaca Bsp24I actccttctttagaaacttccagcccatgagccgtcaggtggtggatgatactaaataca 22440 22381 tgaggaagaaatetttgaaggtegggtaeteggeagtecaecacetaetatgatttatgt Pf1MI BsbI 22500 HaeI StuI ttgcccccaccatgcgcgaaggacaggcctaccctgctaacttcccctatccgcttatag 22501 aacgggggtggtacgcgcttcctgtccggatgggacgattgaaggggataggcgaatatc BsiEI **BpmI** HincII gcaagaccgcagttgacagcattacccagaaaaagtttctttgcgatcgcaccctttggc 22561 cgttctggcgtcaactgtcgtaatgggtctttttcaaagaaacgctagcgtgggaaaccg BstDSI NcoI StyI gcatcccattctccagtaactttatgtccatgggcgcactcacagacctgggccaaaacc 22680 22621 cgtagggtaagaggtcattgaaatacaggtacccgcgtgagtgtctggacccggttttgg **BstDSI** BamHI Ncol BstYI StyI BsaXI EciI ttctctacgccaactccgcccacgcgctagacatgacttttgaggtggatcccatggacg 22681 aagagatgcggttgaggcgggtgcgcgatctgtactgaaaactccacctagggtacctgc Figure 28GG BsiEI EaeI

EagI

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s): Appln. No.

```
09/111,911
                Appln. No.
                             66153-5587
                Docket #
                                       67 / 85
                                                     Gdill
                                                                            67/85
                                                 BsiHKAI
                                                Bsp1286I
                                                   BsrFI
         Tth111II
                                                 BseSI |
    BanII
                                               ApaLI |
                                     Tth111I
 Bsp12861
      agcccacccttctttatgttttgtttgaagtctttgacgtggtccgtgtgcaccggccgc
22741
      tcgggtgggaagaaatacaaaacaaacttcagaaactgcaccaggcacacgtggccggcg
                                             BsiEI
                                            BsrFI
                                            NgoAIVi
       BsaHI
                                            EaeI ||
     SacII |
                                            EagI
                                  BspMI
   MspA1I|
                                           Gdill II
                               FspI
 BstDSI ||
                                               1 11
      ----+ 22860
22801
       MspA1I
                                         Bsp1286I
                             PvuII BstDSI
                             BpmIl
                                     NcoI
                                                         AlwNI
                         Tth111IIII
                                     StyI
                               111
       cataaagaagcaagcaacatcaacagctgccgccatgggctccagtgagcaggaact
22861
       gtatttettegttegttgtagttgttgtegaeggeggtaeeegaggteaetegteettga
                                            Bsp1286I
                                              BmqI |
                 BglII
                                             BseSI
                 BstYI
                                                        Eco47III
                                             BanI| |
                 RleAI
       gaaagccattgtcaaagatcttggttgtgggccatattttttgggcacctatgacaagcg
22921
       ctttcggtaacagtttctagaaccaacaccggtataaaaaacccgtggatactgttcgc
                                                             NruI
                                                          BsiEI
                                                      BSIEI
                                                     BsrFI
                                                    EaeI ||
                                                    EagI ||
                                                   GdiII ||
  HaeII
       ctttccaggctttgtttctccacacaagctcgcctgcgccatagtcaatacggccggtcg
 22981
       gaaaggtccgaaacaaagaggtgtgttcgagcgggacgcggtatcagttatgccggccagc
                            HaeI
       cgagactgggggggtacactggatggcctttgcctggaacccgcactcaaaaacatgcta
 23041
        gctctgacccccgcatgtgacctaccggaaacggaccttgggcgtgagtttttgtacgat
                                     SmlI
                                                   Tth111II Hin4I
                    Bce83I
           Bsp1286I
        cctctttgagccctttggcttttctgaccagcgactcaagcaggtttaccagtttgagta
 23101
        ggagaaactcgggaaaccgaaaagactggtcgctgagttcgtccaaatggtcaaactcat
                                             MspA1I
                          BarDI
                          HaeII
        cgagtcactcctgcgccgtagcgccattgcttcttcccccgaccgctgtataacgctgga
 23161
        gctcagtgaggacgcggcatcgcggtaacgaagaagggggctggcgacatattgcgacct
                              ApaI
                             BanII
                          Bsp1286I
                                      BsiEI
                            BmgI |
                           BseSI
                                    EaeI
                      Eco01091 |
                                    EagI
                         TaqII |
                                  Gdill
        aaagtccacccaaagcgtacaggggcccaactcggccgcctgtggactattctgctgcat
        tttcaggtgggtttcgcatgtccccgggttgagccggcggacacctgataagacgacgta
                                                                     Figure 28HH
                                     BstDSI
                                       NcoI
                                                           BaeI
                                       StyI
    IqaK
         gtttctccacgcctttgccaactggccccaaactcccatggatcacaaccccaccatgaa
```

William S.M. Wold

Title:

66153-5587 Docket # 68 / 85 68/85 caaagaggtgcggaaacggttgaccggggtttgagggtacctagtgttggggtggtactt ccttattaccggggtacccaactccatgctcaacagtccccaggtacagcccaccctgcg 23341 ggaataatggccccatgggttgaggtacgagttgtcaggggtccatgtcgggtgggacgc BomI BolI | AceIII tcgcaaccaggaacagctctacagcttcctggagcgccactcgccctacttccgcagcca agcgttggtccttgtcgagatgtcgaaggacctcgcggtgagcgggatgaaggcgtcggt AflIII TatI BspLU11I FspI cagtgcgcagattaggagcgccacttctttttgtcacttgaaaaacatgtaaaaataatg 23461 gtcacgcgtctaatcctcgcggtgaagaaaaacagtgaactttttgtacatttttattac BsrGI AvaI TatI tactagagacactttcaataaaggcaaatgcttttatttgtacactctcgggtgattatt 23521 atgatetetgtgaaagttattteegtttacgaaaataaacatgtgagageecactaataa tacccccacccttgccgtctgcgccgtttaaaaatcaaaggggttctgccgcgcatcgct 23640 23581 atgggggtgggaacggcagacgcggcaaatttttagtttccccaagacggcgcgtagcga Bsp1286I atgcgccactggcagggacacgttgcgatactggtgtttagtgctccacttaaactcagg 23641 tacgcggtgaccgtccctgtgcaacgctatgaccacaaatcacgaggtgaatttgagtcc SacII MspA1I| MluI FspI BstDSI || cacaaccatccgcggcagctcggtgaagttttcactccacaggctgcgcaccatcaccaa 23701 gtgttggtaggcgccgtcgagccacttcaaaagtgaggtgtccgacgcgtggtagtggtt HaeII BssHII **BsaHI** BssHII | NarI Eco0109I Ecil BanIl 11 cgcgtttagcaggtcgggcgccgatatcttgaagtcgcagttggggcctccgccctgcgc gcgcaaatcgtccagcccgcggctatagaacttcagcgtcaaccccggaggcgggacgcg BsiHKAII Bsp1286I| BseSI | | ApaLI | HaeII gcgcgagttgcgatacacagggttgcagcactggaacactatcagcgccgggtggtgcac cgcgctcaacgctatgtgtcccaacgtcgtgaccttgtgatagtcgcggcccaccacgtg Eco0109I Psp5II HaeI Sse8647I MscI Hin4I | BspGI EaeI | gctggccagcacgctcttgtcggagatcagatccgcgtccaggtcctccgcgttgctcag cgaccggtcgtgcgagaacagcctctagtctaggcgcaggtccaggaggcgcaacgagtc Bsp1286I Figure 28II BmgI BseSI HincII ggcgaacggagtcaactttggtagctgccttcccaaaaagggcgcgtgcccaggctttga ccgcttgcctcagttgaaaccatcgacggaagggtttttcccgcgcacgggtccgaaact

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

```
William S.M. Wold
               Inventor(s):
                              09/111,911
               Appln. No.
               Docket #
                              66153-5587
                                        69 / 85
                                        Bsp1286I
                                                                                69,/85
                                         BmgI
BseSI
                                        HgiEII
                                                     BciVI
                               BstEII
   Hin4I
                 MslI
                         BplI
       gttgcactcgcaccgtagtggcatcaaaaggtgaccgtgcccggtctgggcgttaggata
      caacgtgagcgtggcatcaccgtagttttccactggcacgggccagacccgcaatcctat
                                         Bpu10I
      AlwNI
      HaeII
       cagcgcctgcataaaagccttgatctgcttaaaagccacctgagcctttgcgccttcaga
24061
       gtcgcggacgtattttcggaactagacgaattttcggtggactcggaaacgcggaagtct
                                                             BsiHKAI|
                                                            Bsp1286I|
                                        EaeI
                                                BglI
                                                            BseSI | |
                                                          ApaLI | ||
                                       GdiII
                                                SfiI
            NspI
                   BstAPI
       gaagaacatgccgcaagacttgccggaaaactgattggccggacaggccgcgtcgtgcac
                                                                ---+ 24180
24121
       cttcttgtacggcgttctgaacggccttttgactaaccggcctgtccggcgcagcacgtg
                                                   BsaWI
                          BglII
                                                   BsrFI
                          BstYI
               BsgI
                     BsbI
                                                   PinAI
       gcagcaccttgcgtcggtgttggagatctgcaccacatttcggccccaccggttcttcac
24181
       cgtcgtggaacgcagccacaacctctagacgtggtgtaaagccggggtggccaagaagtg
          Eco57I
                                 BssHII
                               BssHII
          HaeI |
       gatcttggccttgctagactgctccttcagcgcgcgctgcccgttttcgctcgtcacatc
                                                              ----+ 24300
24241
       ctagaaccggaacgatctgacgaggaagtcgcgcgcgacgggcaaaagcgagcagtgtag
                 BsiHKAI
               Bsp1286I
                                                    AflII
             BsaAI
                                                    SmlI
              PmlI
       {\tt catttcaatcacgtgctccttatttatcataatgcttccgtgtagacacttaagctcgcc}
                                                               ----+ 24360
24301
       gtaaagttagtgcacgaggaataaatagtattacgaaggcacatctgtgaattcgagcgg
                                                  BanII
                                               Bsp1286I
                                                 BssSI
                                           Tth111II
                                            BsgI
                                         BstDSI
                 MspA1I
       ttcgatctcagcgcagcggtgcagccacaacgcgcagcccgtgggctcgtgatgcttgta
       aagctagagtcgcgtcgccacgtcggtgttgcgcgtcgggcacccgagcactacgaacat
                                       PstI
                                       SbfI
                          PstI
              BspMI
 BSTEII
       ggtcacctctgcaaacgactgcaggtacgcctgcaggaatcgccccatcatcgtcacaaa
                                                                       24480
        ccagtggagacgtttgctgacgtccatgcggacgtccttagcggggtagtagcagtgttt
                                          Bsp1286I
                                      SacII
                                    MspA1I!
                          MspA1I
                                  BstDSI ||
                           PvuII
                                  BseRI| ||
                                      - 1 1 1 1 1 1
       \tt ggtcttgttgctggtgaaggtcagctgcaacccgcggtgctcctcgttcagccaggtctt
24481
        ccagaacaacgaccacttccagtcgacgttgggcgccacgaggagcaagtcggtccagaa
           BsiEI
                                                                      Figure 28JJ
         EaeI
         EagI
        Gdiīi
        gcatacggccgccagagcttccacttggtcaggcagtagtttgaagttcgcctttagatc
                                                                      24600
 24541
```

Title:

cgtatgccggcggtctcgaaggtgaaccagtccgtcatcaaacttcaagcggaaatctag

Docket # 66153-5587 70 / 85 BssHII 1 70/85 BsaAI BssHII | BsaBI PmlI gttatccacgtggtacttgtccatcagcgcgcgcgcagcctccatgcccttctcccacgc caataggtgcaccatgaacaggtagtcgcgcgcgcgtcggaggtacgggaagagggtgcg BsiEI PvuI agacacgatcggcacactcagcgggttcatcaccgtaatttcactttccgcttcgctgggtetgtgetagecgtgtgagtegeccaagtagtggcattaaagtgaaaggegaagegacee BanII EarI Bsp1286I SapI EarI BmrI BbsIi 24780 \_\_\_\_+ BsrFI PinAI SgrAI Tth111II ccgcactgtgcgcttacctcctttgccatgcttgattagcaccggtgggttgctgaaacc ---+ 24840 24781 --ggcgtgacacgcgaatggaggaaacggtacgaactaatcgtggccacccaacgactttgg HaeII caccatttgtagcgccacatcttcttttttttcttcctcgctgtccacgattacctctggtga gtggtaaacatcgcggtgtagaagagaaagaaggagcgacaggtgctaatggagaccact BsrDI HaeII MscIl AvaI EaeI || HaeII HaeII tggcgggcgctcgggcttgggagaagggcgcttctttttcttcttgggcgcaatggccaa 24960 24901 accgcccgcgagcccgaaccctcttcccgcgaagaaaaagaagaacccgcgttaccggtt SacII MspAlI BstDSI || TagII | EaeIl BbsI Banī GdiIII Ecil atccgccgccgaggtcgatggccgcgggctgggtgtgcgcggcaccagcgcgtcttgtga 24961 taggcggcggctccagctaccggcgcccgacccacacgcgccgtggtcgcgcagaacact HaeII BsaHI NarI BanIl BplI tgagtcttcctcgtcctcggactcgatacgccgcctcatccgcttttttggggggcgcccg actcagaaggagcaggagcctgagctatgcggcggagtaggcgaaaaaacccccgcgggc BStDSI BsaXI Hin4II AhdI || AflIIII HaeIV| || NcoI BsaHI Hin4I| || StyI 11 gggaggcggcggcgacggggacgggacgacacgtcctccatggttgggggacgtcgcgc 25081 ccctccgccgccgctgcccctgccctgctgtgcaggaggtaccaaccccctgcagcgcg Figure 28KK HaeI MscI Earl Eael | BseRI AvaI cgcaccgcgtccgcgctcgggggtggtttcgcgctgctcctcttcccgactggccatttc 25141 gcgtggcgcaggcgcgagcccccaccaaagcgcgacgaggagaagggctgaccggtaaag

cttctcctataggcagaaaaagatcatggagtcagtcgagaagaaggacagcctaaccgc

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587 Title:

Inventor(s): Appln. No. Docket #

71 / 85

25201	gaagaggatatccg	totttttctagtacc	tcagtcagc	-+ tcttcttcctgtcg	+ 2! gattggcg	<sup>5260</sup> <b>7</b>	1/85	
25261	ccctctgagttcg	ccaccaccgcctcca	accttccc	5320				
	ggggagactcaagc	ggtggtggcggaggt	ggctacggc	9900909-33	,-55 555			
			Bce83I	Eco0109I 				
	BanI Sm	nlI	BseRI BseRI	l Psp5II				
	1		 	rcgagcagaccca	aggttttgt			
25321		gcgaactcctcctcc				5380		
	geageteegtgggg							
	BbsI H	BSTBI in4I	BplI					
	aagcgaagacgac	gaggaccgctcagtac	caacagagg	gataaaaagcaaga	ccaggacaa + 2	:5440		
25381	ttcgcttctgctgc							
				RleAI	BsmBI			
	cgcagaggcaaac	gaggaacaagtcggg	ggggggac	gaaaggcatggcga	ctacctaga	25500		
25441		cgcagaggcaaacgaggaacaagtcgggcgggggggacgaaaggcatggcgactacctaga 						
	<b>3</b> -3		HaeII					
	BsaXI	SfcI	PstI		AflIII MluI			
		l gtgctgttgaagcat	l l ctgcagcgc	cagtgcgccattat	ctgcgacgc	25562		
25501		cacgacaacttcgta				25560		
	acaccccccgccg	Bsp1286I	J 2					
		BmgI   BseSI		Pfl11	.08I			
			accatagog	gatgtcagccttg	l ctacgaacg			
25561		tegetacaeggggag				25620		
	caacgttctcgcg	regetacacggggag	cggcacogo		BanII			
				B: Nsp1	sp1286I			
		accgcgcgtaccccc	raaacgccaa	agaaaacggcacat	 gcgagcccaa			
25621						25680		
	ggtggataagag	ggtggataagagtggcgcgcatggggggtttgcggttcttttgccgtgtacgctcgggtt Tth111II						
			l raccatacca	agaggtgcttgcca	cctatcacat			
25681		gaagatggggcataa				25740		
	gggcgcggagct	jaagatggggcacaa	acggcacgg		rBI			
			- + - a + - a c c a		1			
2574		ctgcaagatacccct				25800		
	gaaaaaggtttt	gacgccccacgggga	caggacygc	acggccggcgccg				
	Tth111I HaeI	I	***	- 4 T				
M	IspAlI   PvuII	   HaeII	EcoR <sup>1</sup>	. :				
	l l gcagctggcctt	  gcggcagggcgctgt	as tacct da	  tatcgcctcgctca	acgaagtgcc	25.860		
2580	cgtcgaccggaacgccgtcccgcgacagtatggactatagcggagcgagttgcttcacgg							
			BssHII					
	aaaaatctttga	25920						
2586	tttttagaaact							
	0000000			BpmI		Figure	28LL	
		В	saXI	AvaI   SmlI			<b></b>	
			BsbI	XhoI   	BssHII 			
25.00		atgaaagtcactctgg						
2592	tttgtcgcttt	tactttcagtgagac	ctcacaacc	accttgagctccca	ctgttgcgcgc		•	

```
Inhibiting Apoptosis Adenovirus RID Protein
              Title:
                            William S.M. Wold
              Inventor(s):
              Appln. No.
                            09/111,911
                            66153-5587
              Docket #
                                      72 / 85
                                                TaqII
                            BstEII
                                                                            72/85
      \verb|cctagecgtactaaaacgcagcatcgaggtcacccactttgcctacccggcacttaacct|\\
                                                                   26040
25981
      \tt ggatcggcatgattttgcgtcgtagctccagtgggtgaaacggatgggccgtgaattgga
                        MslI
                   AceIII
                  BsiHKAI
                 Bsp1286I
             RcaI
                                                     FspI AlwNI
       StyI
      {\tt acceccca} aggtcat gagcacagtcat gagtgagctgat cgtgcgccgtgcgcagcccct
26041
      tggggggttccagtactcgtgtcagtactcactcgactagcacgcggcacgcgtcgggga\\
                      BpmI
      ggagagggatgcaaatttgcaagaacaaacagaggagggcctacccgcagttggcgacga
26101
      \verb|cctctccctacgtttaaacgttcttgtttgtctcctcccggatgggcgtcaaccgctgct|\\
       BssHII
     NheI
      gcagctagcgcgctggcttcaaacgcgcgagcctgccgacttggaggagcgacgcaaact
26161
                                                                   26220
      \verb|cgtcgatcgcgaccgaagtttgcgcgctcggacggctgaacctcctcgctgcgtttga|\\
                BSIHKAI
                                              MspA1I
               Bsp1286I
                                  BsaXI
                                             NspI
       EaeI
                                                   | Bce83I
      GdiII
              BtsI
                       |BstDSI
                                  SmlII
                                             SphI
      26280
26221
       SnaBI
                              BsrDI
                                                            SunI
       cccggagatgcagcgcaagctagaggaaacattgcactacacctttcgacagggctacgt
26281
       gggcctctacgtcgcgttcgatctcctttgtaacgtgatgtggaaagctgtcccgatgca
                                  BanII
                                BSIHKAI
         HaeI
               BglII
                               Bsp1286I
                                            BsaXI |
                                                      StyI
                                   SacI SexAI | |BsaI | ApoI
         StuI BstYI
       {\tt acgccaggcctgcaagatctccaacgtggagctctgcaacctggtctcctaccttggaat}
26341
       tgcggtccggacgttctagaggttgcacctcgagacgttggaccagaggatggaacctta
                  StyI
                            BstAPI|
       tttgcacgaaaaccgccttgggcaaaacgtgcttcattccacgctcaagggcgaggcgcg
26401
       aaacgtgcttttggcggaacccgttttgcacgaagtaaggtgcgagttcccgctccgcgc
                                                           Ncol
                                                           StyI
                                                        EaeT
                                                       GdiII
      Tth1111
       \verb|ccgcgactacgtccgcgactgcgtttacttatttctatgctacacctggcagacggccat|\\
26461
       ggcgctgatgcaggcgctgacgcaaatgaataaagatacgatgtggaccgtctgccggta
                                                     AlwNI
                                                    BstAPI
                    Bce83I
                                                  PstI
                                       BseRI
                                              SfcI
    Tth111II
                BtsI
                             AceIII
                                     SmlI
       gggcgtttggcagcagtgcttggaggagtgcaacctcaaggagctgcagaaactgctaaa
26521
       cccgcaaaccgtcgtcacgaacctcctcacgttggagttcctcgacgtctttgacgattt
                                               EaeI
                                                                  Figure 28MM
                                              GdiII
                                          BStDST
          Eco01091
                                         HaeII |
                                    Eco47III |
             Psp5II
           Sse8647I
                                      BsaXII
                                          11
       gcaaaacttgaaggacctatggacggccttcaacgagcgctccgtggccgcgcacctggc
```

```
09/111,911
               Appln. No.
                             66153-5587
               Docket #
                                        73 / 85
26581 -----
       cgttttgaacttcctggatacctgccggaagttgctcgcgaggcaccggcgcgtggaccg
                                                AlwNI
                                        ECONI
       ggacatcattttccccgaacgcctgcttaaaaccctgcaacagggtctgccagacttcac
       cctgtagtaaaaggggcttgcggacgaattttgggacgttgtcccagacggtctgaagtg
                                                Bpu10I
                                            Eco47III |
               NspI
       cagtcaaagcatgttgcagaactttaggaactttatcctagagcgctcaggaatcttgcc
26701
       gtcagtttcgtacaacgtcttgaaatccttgaaataggatctcgcgagtccttagaacgg
               BSIHKAI
              Bsp1286I
                                    Bsp1286I
                BseSI |
               BspMI |
                                    BseSI |
        AarI ApaLI | |
       cgccacctgctgtgcacttcctagcgactttgtgcccattaagtaccgcgaatgccctcc
       gcggtggacgacacgtgaaggatcgctgaaacacgggtaattcatggcgcttacgggagg
                             SfcI !!
                                    -11
       gccgctttggggccactgctaccttctgcagctagccaactaccttgcctaccactctga
26821
       cggcgaaaccccggtgacgatggaagacgtcgatcggttgatggaacggatggtgagact
                    BsrBI
                                                          BpmI
                               AccI
        cataatggaagacgtgagcggtgacggtctactggagtgtcactgtcgctgcaacctatg
26881 ---
        gtattaccttctgcactcgccactgccagatgacctcacagtgacagcgacgttggatac
                                    MspA1I
                                                           AceIII |
                                     PvuII
        caccccgcaccgctccctggtttgcaattcgcagctgcttaacgaaagtcaaattatcgg
 26941
        gtggggcgtggcgagggaccaaacgttaagcgtcgacgaattgctttcagtttaatagcc
                Eco01091
                                           MspA1II
                                         BstDSI ||
                  Psp5II
                                      AhdI
                   SanDI
                                    HaeIVI
                  PstI |
              SfcI
                                    Hin4I|
      KpnI
        {\tt tacctttgagctgcagggtccctcgcctgacgaaaagtccgcggctccggggttgaaact}
        atggaaactcgacgtcccagggagcggactgcttttcaggcgccgaggccccaactttga
                      AatII
                                       ApoI
                    BsaHI
        \verb|cactccggggctgtggacgtcggcttaccttcgcaaatttgtacctgaggactaccacgc|\\
 27061
        gtgaggccccgacacctgcagccgaatggaagcgtttaaacatggactcctgatggtgcg
                               BbsI
    BssSI
            UbaLI
        ccacgagattaggttctacgaagaccaatcccgccgccaaatgcggagcttaccgcctg
        ggtgctctaatccaagatgcttctggttagggcgggcggtttacgcctcgaatggcggac
                                 MunI
                               HaeI
                               MscI
                             EaeI |
                          BstXI |
        cgtcattacccagggccácattcttggccaattgcaagccatcaacaaagcccgccaaga
        gcagtaatgggtcccggtgtaagaaccggttaacgttcggtagttgtttcgggcggttct
                                                             BanII
                                                                     Figure 28NN
                                              BmrI
                                                           BsiHKAI
                                             Ahdil
                                                          Bsp1286I
                                           HaeIVII
                                                               SacI
                                           Hin4I||
         Pf11108I
                                               111
         gtttctgctacgaaagggacggggggtttacttggacccccagtccggcgaggagctcaa
```

William S.M. Wold

Title:

Inventor(s):

```
09/111,911
          Appln. No.
                      66153-5587
          Docket #
                              74/85
                                                               74/85
  caaagacgatgctttccctgcccccaaatgaacctgggggtcaggccgctcctcgagtt
                                      ApaI
                                     BanII
                                   Bsp1286I
                                    BmgI
                                    BseŠI
                                Eco010911
                                 SacII ||
                               MspA1I| ||
                              BstDSI || || |
   \verb|cccaatcccccgccgccgcagccctatcagcagccgcggggcccttgcttcccagga|
   MspA1I
                  PvuII
                  PstI
                                                  BseRI
               TagII | |
                             BstDSI
                                                BmrI
BanI
                  1 11
   accgtgggtttttcttcgacgtcgacggcggtgggtggctgctcctccttatgaccc
                                              BbsI
                                              BmrI
                      BseRI
   acagtcaggcagaggattttggacgaggaggaggaggacatgatggaagactgggaga
    tgtcagtccgtctcctccaaaacctgctcctcctcctcctgtactaccttctgaccctct
                                       TaqII BcgI
                  EarI
    gcctagacgaggaagcttccgaggtcgaagaggtgtcagacgaaacaccgtcaccctcgg
    cggatctgctccttcgaaggctccagcttctccacagtctgctttgtggcagtgggagcc
              BsaHI
               NarI
              BanI
                              BsaWI
           BsrFI
                              BsrFI
          NgoAIV
  BsmI
                                              BseRI
BsiEI |
           SgrAI
    tegeattecectegeeggegecceagaaateggeaaceggttecageatggetacaacet
    agcgtaaggggagcggccgcggggtctttagccgttggccaaggtcgtaccgatgttgga
             BsrFI
             NgoAIV
            HaeII
         BsaHI
    Bsu36I
  BsrBI
BsaXI
    ccgctcctcaggcgccgccggcactgcccgttcgccgacccaaccgtagatgggacacca
     ggcgaggagtccgcgggcggcgtgacgggcaagcggctgggttggcatctaccctgtggt
        HgiEII
     ctggaaccagggccggtaagtccaagcagccgccgttagcccaagagcaacaacagc
     gacettggteceggeeatteaggttegteggeggeggeaategggttetegttgtteg
                           Tth111II
                     Bsp1286I
                       BmgI |
 HaeII
           BsrBI
     Figure 2800
                                               HaeI
                                          DraIII
     gtgggggcaacateteettegeeegeetttettetetaecateaeggegtggeettee
     caccccgttgtagaggaagcgggcggcgaaagaagagatggtagtgccgcaccggaagg
```

William S.M. Wold

Title:

Inventor(s):

Inhibiting Apoptosis Adenovirus RID Protein Title: William S.M. Wold Inventor(s): Appln. No. 09/111,911 Docket # 66153-5587 75 / 85

75/85

```
BsrFI
                                  SfcI
                                                           MspAlI
                               BsgI
      cccgtaacatcctgcattactaccgtcatctctacagcccatactgcaccggcggcagcg
      gggcattgtaggacgtaatgatggcagtagagatgtcgggtatgacgtggccgccgtcgc
                      EaeI
                                             BsiEI
                     GdiII
   MspA1I
                   MspA1II
      gcagcggcagcaacagcagcggccacacagaagcaaaggcgaccggatagcaagactctg
      cgtcgccgtcgttgtcgccggtgtgtcttcgtttccgctggcctatcgttctgagac
                                                             NarI
                                                             BanIl
                                                           BseRI
                                                        BseRI
                                                               111
                                                   HaeII
                                               Eco47III
                      MspA1I
      acaaagcccaagaaatccacagcggcggcagcagcaggaggaggagggcgctgcgtctggcg
      tgtttcgggttctttaggtgtcgccgccgtcgtcgtcctcctcctcgcgacgcagaccgc
 HaeII
      cccaacgaacccgtatcgacccgcgagcttagaaacaggatttttcccactctgtatgct
28021
      gggttgcttgggcatagctgggcgctcgaatctttgtcctaaaaagggtgagacatacga
       atatttcaacagagcaggggccaagaacaagagctgaaaataaaaaacaggtctctgcga
28081
       tataaagttgtctcgtccccggttcttgttctcgacttttatttttttgtccagagacgct
              MspA1I
       tccctcacccgcagctgcctgtatcacaaaagcgaagatcagcttcggcgcacgctggaa
                                                                     28200
28141
       {\tt agggagtgggcgtcgacggacatagtgttttcgcttctagtcgaagccgcgtgcgacctt}
                                           AflII
                              BssHII
                                                   SpeI
       BbsI
       gacgcggaggctctcttcagtaaatactgcgcgctgactcttaaggactagtttcgcgcc
28201
       ctgcgcctccgagagaagtcatttatgacgcgcgactgagaattcctgatcaaagcgcgg
                                                          HaeII
                                                       BsaHI
                                                        NarI
                                            EaeI
                                                       BanI
                                           GdiII
                                  BsaXI MspA1I| Bsp24I
                      BpmI
                                              11
       ctttctcaaatttaagcgcgaaaactacgtcatctccagcggccacacccggcgccagca
28261
       gaaagagtttaaattcgcgcttttgatgcagtagaggtcgccggtgtgggccgcggtcgt
                                                    Nspl
                                              AflIII
                    Bsp24I
                                            BspLU11I
                                 IoqA
 AlwNI
       cctgtcgtcagcgccattatgagcaaggaaattcccacgccctacatgtggagttaccag
28321
       ggacagcagtcgcggtaatactcgttcctttaagggtgcgggatgtacacctcaatggtc
                                             BpmI
       ccacaaatgggacttgcggctggagctgcccaagactactcaacccgaataaactacatg
28381
       ggtgtttaccctgaacgccgacctcgacgggttctgatgagttgggcttatttgatgtac
                              RleAI
     Eco0109I
                            SmaI
                                                                       Figure 28PP
                                                             IoqA
       Psp5II
                          AvaI
                                                            ECORI
                      ECORV
       agcgcgggaccccacatgatatcccgggtcaacggaatccgcgcccaccgaaaccgaatt
                                                                      28500
28441
        tcgcgccctggggtgtactatagggcccagttgccttaggcgcggggtggctttggcttaa
        ctcttggaacaggcggctattaccaccacacctcgtaataaccttaatccccgtagttgg
```

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold Appln. No. 09/111,911 66153-5587 76 / 85

76/85 gagaaccttgtccgccgataatggtggtgtggagcattattggaattaggggcatcaacc BsrBI BsmBI  $\verb|cccg| ctgccctggtgtaccaggaaagtcccgctcccaccactgtggtacttcccagagac| \\$ 28561 gggcgacgggaccacatggtcctttcagggcgagggtggtgacaccatgaagggtctctg 28621 --+ 28680 Sma I SrfI AvaI DraIII BsiEI  ${\tt agggtgcggtcgcccgggcagggtataactcacctgacaatcagagggcgaggtattcag}$ 28681  $\verb|tcccacgccagcgggcccgtcccatattgagtggactgttagtctcccgctccataagtc|$ BanII BsiHKAI BsaWI BseRI Bsp1286I **BspEI** AceIII | SacI BsaI | EaeI EagI GdiII HaeIII BsrFIII NgoAIV|| BsaHI ||| Tth111I NarI PstI BanI| ||| SfcI ggcggcgccggccgtccttcattcacgcctcgtcaggcaatcctaactctgcagacctcg ccgccgcggccggcaggaagtaagtgcggagcagtccgttaggattgagacgtctggagc Hin4I TaqII tcctctgagccgctctggaggcattggaactctgcaatttattgaggagtttgtgcca 28861 28920 aggagactcggcgagacctccgtaaccttgagacgttaaataactcctcaaacacggtEco0109I Psp5II AccI EaeI BseRI  $\verb|tcggtctactttaaccccttctcgggacctcccggccactatccggatcaatttattcct|\\$ 28921  ${\tt agccagatgaaattggggaagagccctggagggccggtgataggcctagttaaataagga}$ Ecil Pfl1108I aactttgacgcggtaaaggactcggcggacggctacgactgaatgttaagtggagaggca 29040 28981 ttgaaactgcgccatttcctgagccgcctgccgatgctgacttacaattcacctctccgt SexAI gagcaactgcgcctgaaacacctggtccactgtcgccgccacaagtgctttgcccgcgac 29041 29100 ctcgttgacgcggactttgtggaccaggtgacagcggcggtgttcacgaaacgggcgctg ApaI BanII Bsp1286I BmgI BseSI Eco01091 | **BsaWI** AvaI **BsaHI** tccggtgagttttgctactttgaattgcccgaggatcatatcgagggcccggcgcacggc 29101 aggccactcaaaacgatgaaacttaacgggctcctagtatagctcccgggccgcgtgccg Figure 28QQ gtccggcttaccgcccagggagagcttgcccgtagcctgattcgggagtttacccagcgc 29161 caggccgaatggcgggtccctctcgaacgggcatcggactaagccctcaaatgggtcgcg

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold Appln. No. 09/111,911 66153-5587 77 / 85

77/85 BsrBI SanDI AloI cccctgctagttgagcgggacaggggaccctgtgttctcactgtgatttgcaactgtcct 29221 ggggacgatcaactcgccctgtcccctgggacacaagagtgacactaaacgttgacagga BglII BallI BstYI PacI ! aaccttggattacatcaagatcTTAATTAAgatcttattccctttaactaataaaaaaa 29281  $\verb|ttggaaccta| at \verb|gtagttctag| AATTAATTctagaataagggaaattgattatttttt| \\$ ataataaagcatcacttacttaaaatcagttagcaaatttctgtccagtttattcagcag tattatttcgtagtgaatgaattttagtcaatcgtttaaagacaggtcaaataagtcgtc BseRI cacctccttgccctcctcccagctctggtattgcagcttcctcctggctgcaaactttctgtggaggaacgggaggagggtcgagaccataacgtcgaaggaggaccgacgtttgaaaga ccacaatctaaatggaatgtcagtttcctcctgttcctgtccatccgcacccactatctt ---+ 29520 29461 ggtgttagatttaccttacagtcaaaggaggacaaggacaggtaggcgtgggtgatagaa catgttgttgcagatgaagcgcgcaagaccgtctgaagataccttcaaccccgtgtatcc gtacaacaacgtctacttcgcgcgttctggcagacttctatggaagttggggcacatagg BsaWI BsrFI NdeI **BseRI** atatgacacggaaaccggtcctccaactgtgccttttcttactcctccctttgtatcccc tatactgtgcctttggccaggaggttgacacggaaaagaatgaggagggaaacatagggg  ${\tt caatgggtttcaagagagtccccctggggtactctctttgcgcctatccgaacctctagt}$ gttacccaaagttctctcagggggaccccatgagagaaacgcggataggcttggagatca BsrFI NspI BspGI NgoAIV Tth111II BplI **BsaXI** Hin4I caaccttacctcccaaaatgtaaccactgtgagcccacctctcaaaaaaccaagtcaaa BsgI Tth111II  ${\tt cataaacctggaaatatctgcacccctcacagttacctcagaagccctaactgtggctgc}$ 29821 gtatttggacctttatagacgtggggagtgtcaatggagtcttcgggattgacaccgacg BsbI cgccgcacctctaatggtcgcgggcaacacactcaccatgcaatcacaggccccgctaac gcggcgtggagattaccagcgcccgttgtgtgagtggtacgttagtgtccggggcgattg Figure 28RR Eco01091 Bsp1286I Psp5II BseSI | BsrDI TaqII ApaLI | | cgtgcacgactccaaacttagcattgccacccaaggacccctcacagtgtcagaaggaaa gcacgtgctgaggtttgaatcgtaacggtgggttcctggggagtgtcacagtcttccttt

```
Appln. No.
                           09/111,911
              Docket #
                           66153-5587
                                     78 / 85
                       Tth111II
                                                                           78/85
                                                           BusI
                 Eco01091
  NheI
      gctagccctgcaaacatcaggccccctcaccaccaccgatagcagtacccttactatcac
30001
      cgatcgggacgtttgtagtccgggggagtggtggtggctatcgtcatgggaatgatagtg
                                                        BanII
                                                     Bsp1286I
                               XcmI
      tgcctcacccctctaactactgccactggtagcttgggcattgacttgaaagagcccat
                                                      ----+ 30120
30061
      acggagtgggggagattgatgacggtgaccatcgaacccgtaactgaactttctcgggta
                                       BanII
                                                  NspI
                                    Bsp1286I
      ttatacacaaaatggaaaactaggactaaagtacggggctcctttgcatgtaacagacga
                                                                30180
30121
      aatatgtgttttaccttttgatcctgatttcatgccccgaggaaacgtacattgtctgct
      cctaaacactttgaccgtagcaactggtccaggtgtgactattaataatacttccttgca
30181
      ggatttgtgaaactggcatcgttgaccaggtccacactgataattattatgaaggaacgt
                                  BpmI
      aactaaagttactggagccttgggttttgattcacaaggcaatatgcaacttaatgtagc
30241
       ttgatttcaatgacctcggaacccaaaactaagtgttccgttatacgttgaattacatcg
                               BsaHI
       30301
       ApaI
                                        BanII
                                      Bsp12861
                                       BmqI
                                       BseSI
                                   Eco010911
                                  Eco0109111
                                        111 (
       tgatgctcaaaaccaactaaatctaagactaggacagggccctctttttataaactcagc
                                                                30420
       actacgagttttggttgatttagattctgatcctgtcccgggagaaaaatatttgagtcg
                               HaeI
                               StuI
       PflMI
                 RleAI
       ccacaacttggatattaactacaacaaaggcctttacttgtttacagcttcaaacaattc
       ggtgttgaacctataattgatgttgtttccggaaatgaacaaatgtcgaagtttgttaag
                             Tth111II
                   Bpu10I
                               StyI
          SmlI
     Tth111III
               HincII
                                                   SfcI
    HindIII ||
                            BtsI | | |
                 HpaI
       caaaaagcttgaggttaacctaagcactgccaaggggttgatgtttgacgctacagccat
       gtttttcgaactccaattggattcgtgacggttccccaactacaaactgcgatgtcggta
                           Apol DrdII
        VspI
       agccattaatgcaggagatgggcttgaatttggttcacctaatgcaccaaacacaaatcc
       tcggtaattacgtcctctacccgaacttaaaccaagtggattacgtggtttgtgtttagg
                   BstDSI
                    NcoI
                    StyI
                   Haell
                                                    Tth111II
                   MscIl
                                                     DrdII | ECONI
  Tth111II
                 Eael | | Hael Apol
       cctcaaaacaaaattggccatggcctagaatttgattcaaacaaggctatggttcctaa
       ggagttttgtttttaaccggtaccggatcttaaactaagtttgttccgataccaaggatt
                                                                      Figure 28SS
                                 BanI
              HaeI
       actaggaactggccttagttttgacagcacaggtgccattacagtaggaaacaaaaataa
                                                                 30720
       tgatccttgaccggaatcaaaactgtcgtgtccacggtaatgtcatcctttgtttttatt
```

William S.M. Wold

Title:

Inventor(s):

66153-5587 Docket # 79 / 85 79/85 **BsaXI** tgataagctaactttgtggaccacaccagctccatctcctaactgtagactaaatgcaga 30721 actattcgattgaaacacctggtgtggtcgaggtagaggattgacatctgatttacgtct  $\tt gaaagatgctaaactcactttggtcttaacaaaatgtggcagtcaaatacttgctacagt$ 30781 ctttctacgatttgagtgaaaccagaattgttttacaccgtcagtttatgaacgatgtca PflMI ttcagttttggctgttaaaggcagtttggctccaatatctggaacagttcaaagtgctca aagtcaaaaccgacaatttccgtcaaaccgaggttatagaccttgtcaagtttcacgagt Bg1TT BstXI MmeI SspIl **BstYI** atattggaactttagaaatggagatcttactgaaggcacagcctatacaaacgctgttgg  ${\tt tataaccttgaaatctttacctctagaatgacttccgtgtcggatatgtttgcgacaacc}$ atttatgcctaacctatcagcttatccaaaatctcacggtaaaactgccaaaagtaacat 31021 taaatacggattggatagtcgaataggttttagagtgccattttgacggttttcattgta tgtcagtcaagtttacttaaacggagacaaaactaaacctgtaacactaaccattacact acagtcagttcaaatgaatttgcctctgttttgatttggacattgtgattggtaatgtga  ${\tt aaacggtacacaggaaacaggagacacaactccaagtgcatactctatgtcattttcatg}$  $\verb|tttgccatgtgtcctttgtcctctgtgttgaggttcacgtatgagatacagtaaaagtac|$ HaeI MscI VspI EaeI | ggactggtctggccacaactacattaatgaaatatttgccacatcctcttacactttttc cctgaccagaccggtgttgatgtaattactttataaacggtgtaggagaatgtgaaaaag at a cattgcccaaga at a aaga at cgtttgtgtt at gtttcaacgtgttt at ttttcaat31261 tatgtaacgggttcttatttcttagcaaacacaatacaaagttgcacaaataaaaagtta tgcagaaaatttcaagtcatttttcattcagtagtatagccccaccaccacatagcttat 31321 acgtcttttaaagttcagtaaaaagtaagtcatcatatcggggtggtggtgtatcgaata acagatcaccgtaccttaatcaaactcacagaaccctagtattcaacctgccacctccct tgtctagtggcatggaattagtttgagtgtcttgggatcataagttggacggtggaggga TatI BsbI  $\verb|cccaacacacagagtacacagtcctttctccccggctggccttaaaaagcatcatatcat|$ 31500 gggttgtgtgtctcatgtgtcaggaaagaggggccgaccggaatttttcgtagtatagta  $\tt gggtaacagacatattcttaggtgttatattccacacggtttcctgtcgagccaaacgct$ 31501 cccattgtctgtataagaatccacaatataaggtgtgccaaaggacagctcggtttgcga MspA1I AceIII Figure 28TT AflII PVII T T SmaI BspGI IqaV AvaI | SmlI catcagtgatattaataaactccccgggcagctcacttaagttcatgtcgctgtccagct

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

09/111,911

Title:

Inventor(s):

Appln. No.

```
66153-5587
                  Docket #
                                           80 / 85
                                                                                   80/85
       gtagtcactataattatttgaggggcccgtcgagtgaattcaagtacagcgacagyicga
Bpu1102I
                                                 MmeI
 AlwNII
      11
       gctgagccacaggctgctgtccaacttgcggttgcttaacgggcggcgaaggagaagtcc
31621 -
       cgactcggtgtccgacgacaggttgaacgccaacgaattgcccgccgcttcctcttcagg
                             MslI
                        Hin4I
                                                          SfcI
       acgcctacatgggggtagagtcataatcgtgcatcaggatagggcggtggtgctgcagca
       tgcggatgtacccccatctcagtattagcacgtagtcctatcccgccaccacgacgtcgt
                                            PstI
                                                           MslI |
                                 BcqI
                                                         BseRI
                               BsrBĬl
 BssHII
                                                             -1.1 - 1
       gcgcgcgaataaactgctgccgccgccgctccgtcctgcaggaatacaacatggcagtgg
       cgcgcgcttatttgacgacggcggcggcgaggcaggacgtccttatgttgtaccgtcacc
                                            HaeII
                                                         Bsp1286I
      BbvCI
                                         BsaHI
                                                           BmgI |
     Bpu10I
                                         BanI|
                                                          BseSI |
       BsaI
       \verb|tctcctcagcgatgattcgcaccgcccgcagcataaggcgccttgtcctccgggcacagc|
        agaggagtcgctactaagcgtggcgggcgtcgtattccgcggaacaggaggcccgtgtcg
                                        SfcI
                                      AlwNI|PstI
        agcgcaccctgatctcacttaaatcagcacagtaactgcagcacagcaccacaatattgt
 31861
        tcgcgtgggactagagtgaatttagtcgtgtcattgacgtcgtgtcgtggtgttataaca
                           RleAI
                           HaeIII
                               11
        tcaaaatcccacagtgcaaggcgctgtatccaaagctcatggcggggaccacagaaccca
        agttttagggtgtcacgttccgcgacataggtttcgagtaccgcccctggtgtcttgggt
       HaeI
       MscI
     EaeI |
  BsaAI |
                                                               BspGI
               BspMI
   PmlI
        \verb|cgtggccatcataccacaagcgcaggtagattaagtggcgacccctcataaacacgctgg|
                                                                      32040
 31981
        gcaccggtagtatggtgttcgcgtccatctaattcaccgctggggagtatttgtgcgacc
                                                       KpnI
                                                   BanI
                              NspI
        acataaacattacctcttttggcatgttgtaattcaccacctcccggtaccatataaacc
 32041
        tgtatttgtaatggagaaaaccgtacaacattaagtggtggagggccatggtatatttgg
                                                  MscI
                    HaeII
                                                EaeI |
                                                                BspMI
                 BsaHI
                                                                BsrFI
                                            MspAlI |
                  NarI
                                                              NgoAIVi
                                             PvuII
        tctgattaaacatggcgccatccaccatcctaaaccagctggccaaaacctgcccgc
 32101
        agactaatttgtaccgcggtaggtggtggtaggatttggtcgaccggttttggacgggcg
                  PstI
              BtsI
                                                      BanII
              SfcI
                                                   Bsp1286I
        cggctatacactgcagggaaccgggactggaacaatgacagtggagagcccaggactcgt
        gccgatatgtgacgtcccttggccctgaccttgttactgtcacctctcgggtcctgagca
                                                                         Figure 28UU
                                                            BsaAI
   BstDSI
                                                            PmlI
      NCOI
                          Rcal EcoRV
                                                 BsbI AflIII
      StyI
        aaccatggatcatcatgctcgtcatgatatcaatgttggcacaacacaggcacacgtgca
 32221
        ttggtacctagtagtacgagcagtactatagttacaaccgtgttgtgtccgtgtgcacgt
```

William S.M. Wold

09/111,911

Title:

Inventor(s):

Appln. No.

**81/85** 

```
BseRI
        Bsu36I
                                         DrdII
      tacacttcctcaggattacaagctcctcccgcgttagaaccatatcccagggaacaaccc
32281
       atgtgaaggagtcctaatgttcgaggagggcgcaatcttggtatagggtcccttgttggg
                                            BbsI
                              BtsI
                                        RleAI | BsaAI
       attcctgaatcagcgtaaatcccacactgcagggaagacctcgcacgtaactcacgttgt
32341
       taaggacttagtcgcatttagggtgtgacgtcccttctggagcgtgcattgagtgcaaca
                                MspA1I
                             BpmI
       gcattgtcaaagtgttacattcgggcagcagcggatgatcctccagtatggtagcgcggg
32401
       cgtaacagtttcacaatgtaagcccgtcgtcgcctactaggaggtcataccatcgcgccc
       tttctgtctcaaaaggaggtagacgatccctactgtacggagtgcgccgagacaaccgag
32461
       aaagacagagttttcctccatctgctagggatgacatgcctcacgcggctctgttggctc
           Pf11108I
        BsbI
       {\tt atcgtgttggtcgtagtgtcatgccaaatggaacgccggacgtagtcatatttcctgaag}
                                                                     32580
32521
       tagcacaaccagcatcacagtacggtttaccttgcggcctgcatcagtataaaggacttc
                                          BsmBI
                             BglII
                                         BsaWI |
                                                   BsaI
      SexAI
                 Eco57I
                             BstYI
                                      Tth111II
       caaaaccaggtgcgggcgtgacaaacagatctgcgtctccggtctcgccgcttagatcgc
32581
       gttttggtccacgcccgcactgtttgtctagacgcagaggccagagcggcgaatctagcg
                                                   HaeII
                                                    XcmI
                                                BsaHI
                                                 NarI
                                                BanIl
       tctgtgtagtagttgtagtatatccactctctcaaagcatccaggcgccccctggcttcg
32641
       agacacatcatcaacatcatataggtgagagagtttcgtaggtccgcggggggaccgaagc
       ggttctatgtaaactccttcatgcgccgctgccctgataacatccaccaccgcagaataa
32701
       ccaagatacatttgaggaagtacgcggcgacgggactattgtaggtggtggcgtcttatt
                                                       BsrBI
                                                       Earll
                                                       SapIl
                       TagII
       gccacacccagccaacctacacattcgttctgcgagtcacacacgggaggagcgggaaga
32761
        cggtgtgggtcggttggatgtgtaagcaagacgctcagtgtgtgccctcctcgcccttct
   BseRI
           DrdII
        gctggaagaaccatgttttttttttttccaaaagattatccaaaacctcaaaatgaag
 32821
        cgaccttcttggtacaaaaaaaaaataaggttttctaataggttttggagttttacttc
                            BsaWI
        atctattaagtgaacgcgctcccctccggtggcgtggtcaaactctacagccaaagaaca
 32881
        tagataattcacttgcgcgaggggaggccaccgcaccagtttgagatgtcggtttcttgt
        gataatggcatttgtaagatgttgcacaatggcttccaaaaggcaaacggccctcacgtc
        ctattaccgtaaacattctacaacgtgttaccgaaggttttccgtttgccgggagtgcag
                                                                       Figure 28VV
                               BseRI
                            HgiEII |
```

caagtggacgtaaaggctaaacccttcagggtgaatctcctctataaacattccagcacc

Eco57I

Appln. No. 09/111,911 Docket # 66153-5587 82 / 85 33001 --82/85 gttcacctgcatttccgatttgggaagtcccacttagaggagatatttgtaaggtcgtgg ttcaaccatgcccaaataattctcatctcgccaccttctcaatatatctctaagcaaatc 33061 aagttggtacgggtttattaagagtagagcggtggaagagttatatagagattcgtttag Bce83I EaeI Eco57I HaeII SspI GdiII ccgaatattaagtccggccattgtaaaaatctgctccagagcgccctccaccttcagcct 33121 ggcttataattcaggccggtaacatttttagacgaggtctcgcgggaggtggaagtcgga RcaI ApoI caagcagcgaatcatgattgcaaaaattcaggttcctcacagacctgtataagattcaaa 33181 gttcgtcgcttagtactaacgtttttaagtccaaggagtgtctggacatattctaagttt Eco0109I PvuII BspMI PspSII agcggaacattaacaaaaataccgcgatcccgtaggtcccttcgcagggccagctgaaca tcgccttgtaattgtttttatggcgctagggcatccagggaagcgtcccggtcgacttgt EaeI Gdill MslI BsgI |  ${\tt taatcgtgcaggtctgcacggaccagcgggccacttccccgccaggaaccttgacaaaa}$ 33301 attagcacgtccagacgtgcctggtcgccggtgaagggggggtccttggaactgtttt gaacccacactgattatgacacgcatactcggagctatgctaaccagcgtagccccgatg cttgggtgtgactaatactgtgcgtatgagcctcgatacgattggtcgcatcggggctac HindIII taagctttgttgcatgggcggcgatataaaatgcaaggtgctgctcaaaaaatcaggcaa attcgaaacaacgtacccgccgctatattttacgttccacgacgagttttttagtccgtt MslI BspMI Pf11108I agcctcgcgcaaaaaagaaagcacatcgtagtcatgctcatgcagataaaggcaggtaag tcggagcgcgttttttctttcgtgtagcatcagtacgagtacgtctatttccgtccattc AflIII BsaWI | Tth111II BspEI DrdII BspLU11I ctccggaaccaccacagaaaaagacaccatttttctctctaaacatgtctgcgggtttctg gaggccttggtggtgtctttttctgtggtaaaaagagagtttgtacagacgcccaaagac cataaacacaaaataaaataacaaaaaaaacatttaaacattagaagcctgtcttacaaca 33660 gtatttgtgttttatttattgttttttgtaaatttgtaatcttcggacagaatgttgt Eael BsrFI GdiII NgoAIV ggaaaaacaacccttataagcataagacggactacggccatgccggcgtgaccgtaaaaa cctttttgttgggaatattcgtattctgcctgatgccggtacggccgcactggcattttt BsaWI TaqII BseRI AceIII |Hin4I BstEII aactggtcaccgtgattaaaaagcaccaccgacagctcctcggtcatgtccggagtcata ttgaccagtggcactaatttttcgtggtggctgtcgaggagccagtacaggcctcagtat Figure 28WW **BSIEI** TaqII atgtaagactcggtaaacacatcaggttgattcatcggtcagtgctaaaaagcgaccgaa tacattctgagccatttgtgtagtccaactaagtagccagtcacgatttttcgctggctt

Inhibiting Apoptosis Adenovirus RID Protein

William S.M. Wold

Title: Inventor(s):

83/85

```
TagII
          SmaI
        AvaI |
        atagcccgggggaatacatacccgcaggcgtagagacaacattacagcccccataggagg
 33841
        tatcgggcccccttatgtatgggcgtccgcatctctgttgtaatgtcgggggtatcctcc
                                                           StyI
              VspI
        tataacaaaattaataggagagaaaaacacataaacacctgaaaaaaccctcctgcctagg
 33901
        atattgttttaattatcctctttttgtgtatttgtggactttttgggaggacggatcc
                                         HaeII
                                     Eco47III | MspA1I
                    BsrBI
       BpmI
        caaaatagcaccctcccgctccagaacaacatacagcgcttcacagcggcagcctaacag
 33961
        gttttatcgtgggagggcgaggtcttgttgtatgtcgcgaagtgtcgccgtcggattgtc
        tcagccttaccagtaaaaaagaaaacctattaaaaaaaacaccactcgacacggcaccagc
 34021
        agtcggaatggtcattttttcttttggataatttttttgtggtgagctgtgccgtggtcg
                                                        BsgI
          AceIII
        34081
        atgacgtaacggttaaagtccacaaaaacacccagaaaaccgcacgcgaacctacgccc
                                                                     34200
  34141
         tactgcattgccaatttcaggtgttttttgtgggtcttttggcgtgcgcttggatgcggg
        agaaacgaaagccaaaaaacccacaacttcctcaaatcgtcacttccgttttcccacgtt
                                                           ----+ 34260
         tctttgctttcggttttttgggtgttgaaggagtttagcagtgaaggcaaaagggtgcaa
    BsaAI
                                         BsbI
                                                          Ecil
    SnaBI
         acgtaacttcccattttaagaaaactacaattcccaacacatacaagttactccgcccta
  34261
         tgcattgaagggtaaaattcttttgatgttaagggttgtgtatgttcaatgaggcgggat
         aaacctacgtcacccgccccgttcccacgccccgcgccacgtcacaaactccacccctc
  34321
         tttggatgcagtgggcgagggtgcgggggcgcggtgcagtgtttgaggtggggag
        attatcatattggcttcaatccaaaataaggtatattattgatgatg
         taatagtataaccgaagttaggttttattccatataataactactac
Enzymes that do cut:
                                                                   AhdI
                                                        AflIII
            AatII
                      AccI
                             AceIII
                                        AclI
                                                AflII
    AarI
                                                                   AvrII
                                                AscI
BbvCI
                                                          AvaI
            AlwNI
                      ApaI
                              ApaLI
                                        ApoI
    AloI
                                                        Bce83I
                              BanII
                                        BbsI
   BaeI
            BamHI
                      BanI
                                                                   BpmI
                                                 BmrI
                                                          BplI
  BciVI
             BclI
                      BglI
                              BglII
                                        BmqI
                                                         BsaWI
                                                                   BsaXI
                                                BsaHI
                                       BsaBI
  Bpu10I Bpu1102I
                      BsaI
                              BsaAI
                                              BsiHKAI
                                                          BsmI
                                                                   BsmBI
                               BsgI
                                       BsiEI
   BsbI
            BseRI
                     BseST
                                                         BsrBI
                                                                   BsrDI
                              BspGI BspLU11I
                                                BspMI
                     BspEI
  Bsp24I Bsp1286I
                                                                   BstXI
                                                        BstEII
                    BssHII
                              BssSI
                                      BstAPI
                                               BstDSI
   BsrFI
            BsrGI
                                                                   DrdI
   BstYI
          BstZ17I
                    Bsu36I
                               BtsI
                                        ClaI
                                                 DraI
                                                        DraIII
                                        Ecil Eco47III
                                                         Eco57I
                                                                   ECONI
                               EarI
   DrdII
             EaeI
                      EagI
                                                GdiII
                                                           HaeI
Eco01091
            ECORI
                     ECORV
                               FseI
                                        FspI
                                                                    MluI
           HgiEII
                             HincII
                                                 HpaI
                                                           KpnI
                     Hin4I
                                     HindIII
   HaeIV
                                                           NCOI
                                                                    NdeI
                             MspA1I
                                                 NarI
                                        MunI
    MmeI
             MscI
                      MslI
                                        NsiI
                                                 NspI
                                                           PacI Pfl1108I
                               NruI
  NgoAIV
             NheI
                      NotI
                               PmlI
                                       PshAI
                                               Psp5II
                                                           PstI
                                                                    PVIIT
                      PmeI
   PflMI
            PinAI
                                                                   SanDI
                                                 SacII
                                                           SalI
                     RleAI
                              RsrII
                                        SacI
   PvuII
             RcaI
                                        SfcI
                                                 SfiI
                                                           SafI
                                                                   SgrAI
                      Scal
                              SexAI
             SbfI
    SapI
                                                  SrfI Sse8647I
                                                                    IqeZ
                               SpeI
                                        SphI
             SmlI
                     SnaBI
    SmaI
                                                        Tth1111 Tth111II
                                                  TatI
             StyI
                      SunI
                                SwaI
                                        TaqII
    StuI
                                                  Xmn I
             VspI
                               XcmI
                                        XhoI
   UbaLI
```

Title: Inhibiting Apoptosis Adenovirus RID Protein Inventor(s): William S.M. Wold Appln. No. 09/111,911 Docket # 66153-5587 84 / 85

84/85

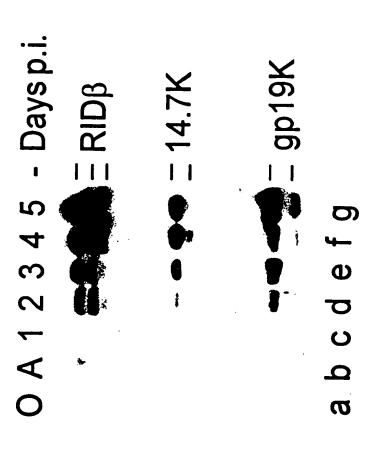


Figure 29

Title: Inventor(s): Appln. No. Docket #

Inhibiting Apoptosis Adenovirus RID Protein William S.M. Wold 09/111,911 66153-5587

85/85

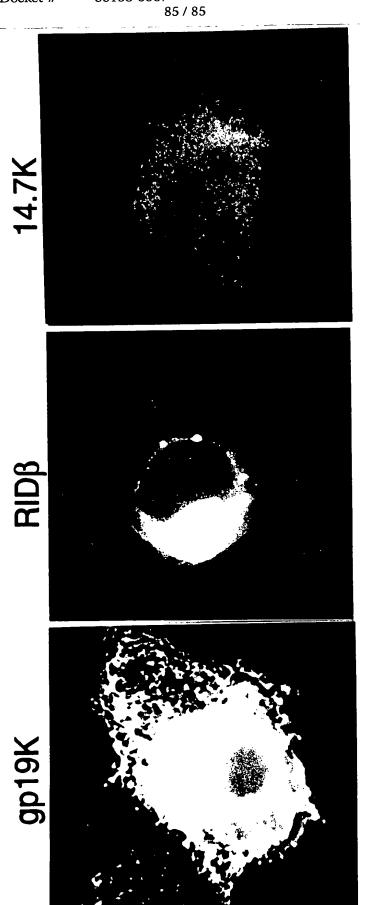


Figure 30C

Figure 30B

Figure 30A